Culture and Good Governance: A Brief Empirical Exercise

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Abstract

This paper uses regression analysis to explore relationships between culture and governance. The World Bank Worldwide Governance Indicators, in six expressions, are used as dependent variables. Explanatory variables are real per capita GDP (PPP) and culture measured in two dimensions. The data set includes 68 nations. The authors find that the level of development, measured as real per capita GDP has the strongest relationship with good governance but, in most cases, the cultural measures are influential as well.

Introduction

Quantitative analysis is highly valued and widely practiced in the economics profession. Still, many will agree that there are important influences on economic behavior that are difficult to quantify. One result is that these potentially important influences are often ignored, discounted, or assumed away in empirical economic analyses. Quality of governance and culture provide two examples of potentially important but difficult to measure factors. Alternatively, qualitative analyses may be a more appropriate means to study such issues but may also be unconvincing to members of a profession bent on quantification (Guiso, Sapienza and Zingales 2006).

This paper uses quantitative/statistical analysis to explore the possible relationship between culture and governance. Government provides important institutional parameters within which

economies operate and therefore is expected to condition economic outcomes (Dolfsma 2011). Presumably 'good' governance will enhance the prospects of achieving 'good' economic outcomes. Several papers reviewed below make this argument. This paper takes one step back to explore the extent to which the characteristics of national culture are statistically related to the quality of governance across 68 nations. Thus the paper asks whether culture, via its influence on the quality of governance, can be statistically tied (indirectly) to economic outcomes.

The paper first provides a brief review of research exploring the relationships between governance and economic outcomes and between culture and governance. Second, two sets of publically available indices, one set measuring governance quality and one providing a broad two-dimensional measure of culture will be explained. Third, a simple statistical model is posited, operationalized, and estimated. The results of the model will then be presented and discussed.

Review of Related Literature

The causes of sustained economic development have long been of interest to economists. Often research on this question has focused on the role resources, or the lack thereof, play in economic development (Olson 1996). Others try to understand the link between a nation's economic development and its institutions, particularly its governmental organization and effectiveness.

Altman (2013) investigates the link between various measures of governmental effectiveness and national economic performance. He finds that the higher a country scores on the Good Capitalist

Governance Index, the higher its per-capita income. Ngobo and Fouda (2012) use the World Bank's governance indices to study the economic performance of firms located in 21 countries. Their results are similar to Altman's. The better a country performs on the governance indices, the higher the profitability of the firms. This impact is greatest for countries on the low end of the good governance indices who improve upon their score. Gani (2011) demonstrates that increasing a country's political stability and government effectiveness leads to greater economic growth.

Murray (2010), Huynh and Jacho-Chavez (2009) and Meon and Weill (2005) investigate the links between various measures of good governance and economic performance as well. Huynh and Jacho-Chavez find that countries scoring well on government accountability and the rule of law enjoy higher levels of economic growth than do countries scoring lower. Meon and Weill ask whether an improvement in a country's governance improves its macroeconomic efficiency. Similar to the others, they find better governance fosters better macroeconomic performance. It seems clear that government effectiveness is related to positive economic outcomes. The work reviewed below explores the cultural bases of good governance.

Licht, Goldschmidt and Schwartz (2007) study the variation in three of the World Bank governance indicators. In varying combinations they use regression analysis to identify relationships between governance and cultural measures provided by Schwartz (1994, 1999), per-capita GDP, Gini coefficients, a measure of ethnic fractionalization, and a dummy variable for a history of British rule. The variety of cultural measures examined makes it difficult to briefly summarize their findings. Their general conclusion is that culture (variously measured)

does have a strong influence on governance. Importantly they conclude that "[p]articular cultural profiles in major world regions are less compatible with 'good governance'" as defined in the indices used (682). Ultimately this implies that attempts to impose outside standards of good governance on some nations might inhibit rather than promote economic development.

Using a combination of data on freedom rights from Freedom House and corruption scores from Transparency International to measure effective democracy, Inglehart and Welzel (2003) demonstrate a positive relationship between the presence of self-expression values and support for democracy. Per capita GDP is included as a control variable in some model specifications. Both self-expression values and per capita GDP are positively related to effective democracy and there is secondary evidence that self-expression and per capita GDP were partially related as well.

A paper by Al-Marhubi (2004) is closely related to the present work. Al-Marumbi explores how governance quality, measured by various combinations of the Worldwide Governance Indicators shown in Table 1, is related to a set of cultural/historical variables, openness to trade, and income. The two strongest influences on quality of governance are per-capita income and Western European influence. Given the way the model was operationalized this translates to income and culture as the primary influences on governance quality.

The World Bank Governance Indices

Since 1996 the World Bank has published six indices aimed at capturing national perceptions of governance quality in six dimensions. Indices are reported for most nations and most years. The indices are based on information from some 30 sources and are normalized to fit in a range of approximately -2.5 to 2.5 with higher numbers representing better outcomes. Because of measurement difficulties and possible errors, confidence intervals are reported along with the indices. Brief descriptions of the six governance dimensions are provided in Table 1. The creators of the indices report their methodology in Kaufmann, Kraay, and Mastruzzi (2010a).

INSERT TABLE 1 ABOUT HERE

These governance indices have been widely used yet they have faced some criticism. One (Thomas 2010) is that the governance indicators do not meet the standard of construct validity. Construct validity requires the governance indices be clearly defined and actually measure what they propose to measure. In response Kaufmann, Kraay and Mastruzzi (2010b) point out, alternatively, that Thomas fails to demonstrate that the indices do not meet the criteria and, moreover, has not offered a solution. A related criticism is provided by Langbein and Knack (2010) who recognize the construct validity critique but go on to argue that the six governance measures have substantial overlap in that they are likely to be measuring the same broad underlying concept. These issues cannot be resolved in this short paper so the six indices will be treated as six facets of governance rather than six unique measures.

World Values Survey Value Cultural Dimensions

The World Values Survey (WVS) (http://www.worldvaluessurvey.org/) is an ongoing project that gathers national information on values and monitors the information for changes through

time. Five waves of surveys have been completed since 1981. The sixth wave is underway. The values information provided by the WVS has served as the raw material for cultural information in many contexts including Inglehart and Baker (2000) who apply factor analysis to the responses to 10 WVS questions. The result is two broad cultural dimensions, traditional versus secular-rational and survival versus self-expression. These two underlying dimensions account for 70 percent of the variation in the WVS responses over the countries surveyed.

The first dimension (TRADRAT) captures a society's general views on abortion, divorce, homosexuality, gender roles in politics, parental authority, and the importance of family life. Traditional cultures emphasize religion and have low tolerance for abortion, divorce, etc. Instead they emphasize male dominance in political life and adherence to parental authority. Authoritarianism characterizes their political make up. Secular-rational cultures place less emphasis on religion and have higher levels of tolerance for abortion and homosexuality while emphasizing gender equality in the political life. These societies have higher levels of democratic participation in the political process.

The second dimension (SURVSELF) taps into a society's level of trust, tolerance, subjective well-being and self-expression. Inglehart and Baker suggest that this reflects a society's underlying level of economic security. Countries with high levels of security tend toward higher levels of tolerance and self-expression. The opposite holds for societies with low levels of economic security. They provide evidence that this dimension both shapes and is shaped by a nation's level of economic development. In further analysis Inglehart and Baker show that nations high on the secular-rational scale tend to be higher income nations. This relationship is

less evident on the traditional-secular scale. Figure three plots the 68 nations of the fourth WVS survey, those used in this study, in the two dimensions with a few nations identified for context.

INSERT FIGURE 1 ABOUT HERE

Governance and Culture – Empirical Evidence

The empirical work reported below adheres to Kennedy's (2002, 575) admonition to "Keep it sensibly simple" when doing applied econometric work. The simplest approach would be to study the statistical relationships between the governance variables and the cultural variables. However, sensible simplicity asks more. A brief examination of Figure 1, reflections on the literature reviewed, and perhaps common sense indicate that the inclusion of a proxy for the level of economic development is warranted.

The analysis below uses the six alternate measures of governance quality as dependent variables. The two cultural measures and real per capita GDP (for year 2000, PPP, from World Development Indicators) serve as the independent variables. Table 2 provides the descriptive statistics for all variables and the variance inflation factors (VIFs) for the independent variables. Being well below five, the VIFs indicate that multicollinearity is not severe. The slightly larger VIF values on RPCGDP and SURVSELF are consistent with the loose income/culture relationship evident in Figure 1 and revealed in previous work.

INSERT TABLE 2 ABOUT HERE

Table 3 shows the results of ordinary least squares estimations of the six models. The level of economic development, using real per capita GDP (RPCGDP) as a proxy, is positively related to all six measures of governance. However, the magnitude of the relationship varies. At the low

end, a marginal increase of one dollar in RPCGDP relates to a positive .000022 increase in the voice and accountability, index (VA). On the high end, a dollar increase in RPCGDP relates to a .000052 increase in both rule of law (RL), and control of corruption (CC). An alternative interpretation is that for every $1,000 increase in RPCGDP, one expects a positive change in the governance indices in the range of .022 to .052. Consistent with Al-Marhubi's (2004) findings, standardized coefficients (not reported here) indicate that RPCGDP has the strongest relation with governance of the three independent variables.

INSERT TABLE 3 ABOUT HERE

SURVSELF does not show a statistically detectable relationship with political stability (PS), regulatory quality (RQ), or RL. SURVSELF is positively related to VA, government effectiveness (GE), and CC. A one point increase in the SURVSELF index relates to a .308 increase in VA, a .215 increase in GE, and a .247 increase in CC. This suggests that societies high on the self-expression scale are able to express themselves effectively (VA), demanding the government be effective (GE) and honest (CC). Alternatively, some degree of corruption might be, in part, a survival tactic in those societies low on the SURVSELF scale.

TRADRAT shows a consistently positive relationship with good governance as measured in all six dimensions. At the low end, a one point increase in TRADRAT relates to a .212 increase in GE. At the high end the same one point change relates to a .340 increase in PS. This outcome is consistent with the longstanding Institutionalist notions of past-boundedness. If moves toward good governance represent progress, tradition can be seen as holding back progress.

Although parsimonious, the three variable model used here explains a good deal of variation in the good governance indices, in all cases over 50 percent. The models using GE, RL, and CC, explain some three-quarters of the variation in the governance indices.

Conclusions and a Caveat

The results indicate that both culture and income are related to good governance. That income is the more influential is not surprising. Good governance requires resources and where economic resources are relatively scarce (low RPCGDP) to provide good governance might compete with meeting basic needs, at least in the short term. Similarly, at least over time, good governance likely drives economic development upward. Still, even after controlling for differences in real per capita GDP, the evidence shows culture to be statistically related to good governance. The less traditional and survival oriented a nation's culture is, the more likely it is that the nation is well governed.

As indicated in the literature review, both the governance indices and the cultural indices have been used in a variety of empirical models. In most cases the models used were more sophisticated in the sense that they included more explanatory variables. The models used in this paper are extremely parsimonious yet they explain a great deal of the variation in the governance indices and reveal several statistically detectable relationships between the cultural and the good governance indices. Building on this foundation one could explore the culture/governance relationship in greater detail. This paper provides some evidence but certainly doesn't provide the last word on this topic. It is but a bit of evidence showing that the original institutionalist

concern for culture is warranted and provides some evidence as to how specific cultural attributes relate to quality of governance.

A caveat is in order. Typically, original institutional economists are not enamored with the positive-normative distinctions sometimes used in economic analysis. The use of statistical methods can give a false sense of objectivity. As Hayden warns,

> Before one can take a step in an inquiry, one must make judgments about which data, about which techniques, about which logic [will drive the analysis]. One must judge the analysis to be using the correct technique in the correct direction. (Hayden 1982, 643)

Even if one is confident that statistical analysis is appropriate to the research problem the validity of the governance and cultural indices could still be questioned. Obviously the creators of the governance indices had some notion of good and bad governance when they designed the indices. Similarly, factor analysis could have been applied to a different set of questions to derive the cultural indices. For these reasons alone future students of the governance/culture connection would do well to repeat this exercise using alternative measures before drawing general conclusions about culture's relationship to governance.

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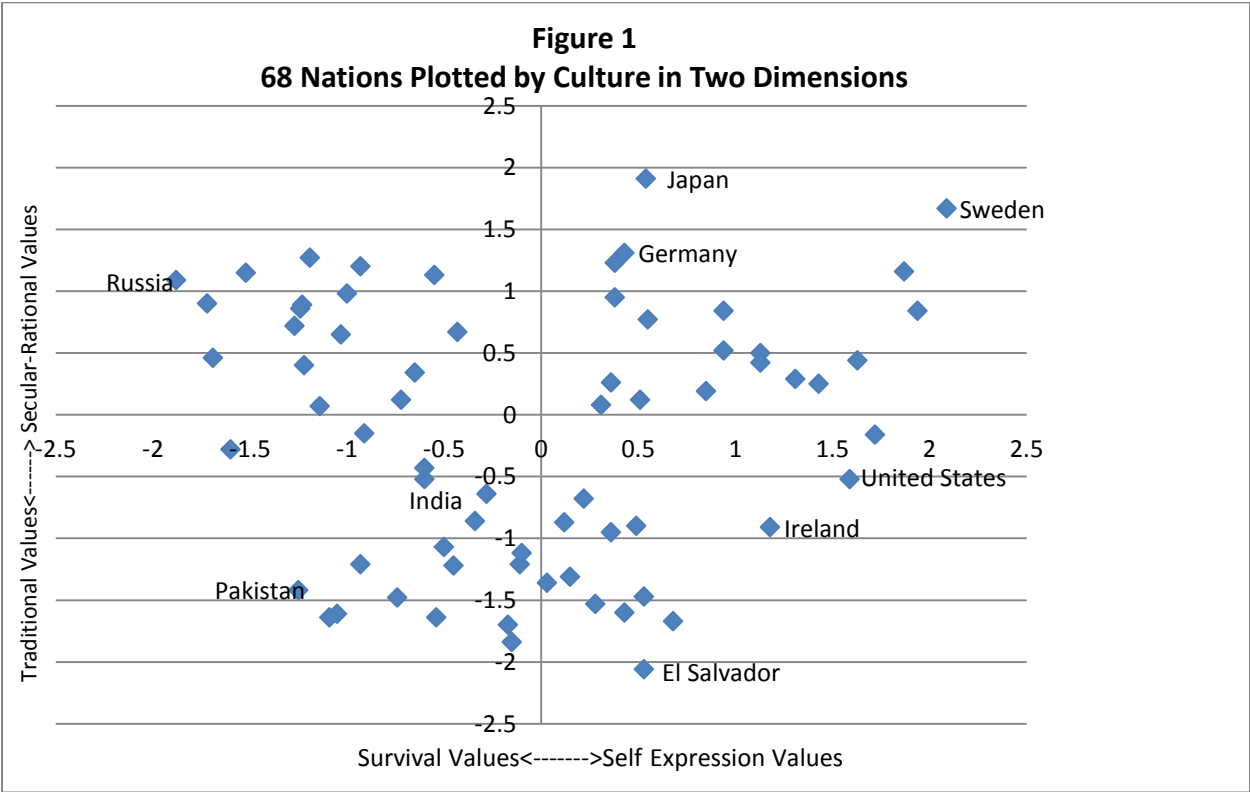| Table 1 |
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| **Brief Descriptions of Worldwide Governance Indicators** |
| **Voice and accountability (VA)** captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. |
| **Political stability and absence of violence (PS)** measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism |
| **Government effectiveness (GE)** captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. |
| **Regulatory quality (RQ)** captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. |
| **Rule of law (RL)** captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. |
| **Control of corruption (CC)** captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. |
| Source: World Bank, Worldwide Governance Indicators www.govindicators.org |

Figure 1
68 Nations Plotted by Culture in Two Dimensions

Table 2				
Descriptive Statistics, n=68				
NAME	MEAN	MINIMUM	MAXIMUM	VIF
VA	0.30551	-1.737	1.5756	n/a
PS	-5.12E-03	-2.5319	1.4389	n/a
GE	0.44244	-1.1338	2.2687	n/a
RQ	0.48026	-1.621	1.894	n/a
RL	0.31156	-1.5573	1.9442	n/a
CC	0.30232	-1.1833	2.4706	n/a
RPCGDP	14642	868	61091	2.95
SURVSELF	-5.57E-02	-1.88	2.09	2.52
TRADRAT	-0.13794	-2.06	1.91	1.38
Note 1: The values for VA, PS, GE, RQ, RL, and CC are the index averages for 2006-2011. Note 2: Variance inflation factors less than 5 indicate non-severe multicollinearity				

Table 3						
OLS Regression Results						
Dep Var / Ind Var	VA	PS	GE	RQ	RL	CC
RPCGDP	0.22E-04 (2.086)**	0.37E-04 (3.568)*	0.43E-04 (5.654)*	0.45E-04 (4.920)*	0.52E-04 (6.125)*	0.52E-04 (6.447)*
SURVSELF	0.308 (2.536)**	0.040 (0.337)	0.215 (2.420)**	0.091 (0.862)	0.145 (1.474)	0.247 (2.645)*
TRADRAT	0.317 (3.683)*	0.340 (4.036)*	0.212 (3.372)*	0.182 (2.436)**	0.222 (3.179)*	0.163 (2.463)**
CONSTANT	0.046 (0.252)	-0.491 (-2.758)*	-0.151 (-1.133)	-0.144 (-0.913)	-0.412 (-2.789)*	-0.423 (-3.015)*
Adj. R-SQ	.5416	.5586	.7557	.6307	.7435	.7814
Note 1: t-ratios are shown in parentheses below coefficients. * indicates statistical detectable relationship with 99% confidence, ** indicates 95% confidence, and *** indicates 90% confidence Note 2: White's test indicated homoscedastic error terms						