Tables to:

Martin Paldam: Corruption and religion

Table 1. The economic-cultural model

$\kappa_i = \alpha_0 + []_e + []_c$. The mixed economic $[]_e$ and cultural $[]_c$ model. κ_i is the corruption index, where i is the country index. α_0 is a constant,

Economic model: $\kappa_i = []_e = \alpha_1 y_i + \alpha_2 p_i$

  y_i, the (natural) logarithm to average real GDP per capita in 1994-96, using the PPP-data.

  p_i, the (natural) logarithm to the average rate of inflation 1989-1998.

Cultural model used: $\kappa_i = []_c = \beta_0 + \beta_1 r_i^j$

  r_i^j, the share of religion j in the population of country i. The model is presented in IV.1

Alternative cultural model from Paldam (2000): $\kappa_i = []_c = \beta_1 D^{WE}_i + \beta_2 D^{LA}_i + \beta_3 D^{OC}_i + \beta_4 D^A_i + \beta_5 D^O_i + \beta_6 \gamma_i,$

  The D's are binary dummies for the main »cultural areas«. They are 1 if the country belongs to area, else 0

  D^{WE}_i, West European cultural area, including USA, Canada, Australia and New Zealand

  D^{LA}_i, Latin American cultural area: Spanish/Portugese speaking countries in the Americas

  D^{OE}_i, Old Communist countries. The countries of former USSR and in Eastern and Central Europe

  D^A_i, African cultural area: Countries in Sub-Sahara Africa

  D^O_i, Oriental cultural area: Countries with »Chinese« culture including Japan and South Korea

Table 2. The two religion variables and the three information criteria

In matrices each row is a country, with index: i = 1, ..., 100.
Each column is a J-religions, with index j = 1, ..., 11

r	100x11	Element r_i^j is the fraction of country i's population having the J-religion
h	100x1	Element h_i is the Herfindahl index for religious diversity: $h_i = \Sigma_j r_i^{j\,2}$

Size: $\Sigma_j r > k_1 = 2$ for any j.
Broadness: More than $k_2 = 5$ of the r_{ij}'s for each j are larger than $k_3 = 0.1$

  Note: The word »J-religion« is used to indicate that the religions are grouped.

Table 3. The division of Christianity in two and four J-religions

Pre-Reform Christians		*Reform Christians*	
Old Christians	*Catholics*	*Protestants* [a]	*Anglicans*
Churches before the Roman Catholics: Eastern and Orthodox as Coptic, Greek, Russian etc.	Roman Catholic Church	Churches from after the Reformation, including some new ones	Data allow Anglicans to be separately analyzed

a. Include two groups from Barrett: »Protestants« and »Marginal Protestants«.

Table 4. The structure of the **r**-data measuring the religion of the 100 countries

Religion	Number of countries		Size		Income [a]
	(1) Above 0.5 [b]	(2) Above 0.05	(3) Column Σ	(4) In mill	(5) Relative [c]
Christian:	61	85	59.7	3307	2.8
Old Chr.	9	20	9.8	541	1.2
Catholic	32	61	34.7	1923	2.3
Anglicans	0	9	1.9	106	2.8
Protestant	7	35	13.3	736	4.1
Islam	12	33	15.9	880	0.5
Hindu	1	5	1.6	820	0.4
Buddhism	4	10	4.0	219	2.0
Oriental	3	8	2.8	157	1.2
Tribal	0	14	3.6	199	0.5
Atheists	5	34	8.0	445	1.2
Residual	1	22	4.4	242	2.3

Note: Columns (4) and (5) use the population sizes, while the other columns disregard country size.

a.   Measured in PPP values relative to GDP per capita in the median income country of the sample for 1996.

b.   A total of 9 + 32 + ... + 5 + 1 = 74 countries have a majority J-religion.

c.   The calculations in (5) are based on the false assumption that all adherents of each religion have the same (average) income in each country. More precise data would probably increase the income differences found.

Table 5. The three models estimated in Tables 6, 7 and 8

Model M1	**Variables** used in models:
(eq1) $\kappa_i = \beta_0 + \beta_1 r^j_i + u_{1i}$	κ_i is the corruption index for country i
	r^j is column j in the **r**-matrix, ie, the data set for J-religion j
Model M2	y is the logarithm to average real GDP per capita
(eq2) $\kappa_i = \gamma_0 + \gamma_1 y_i + \gamma_2 p_i + \gamma_4 r^j_i + u_{2i}$	p is logarithm to the average rate of inflation
Model M3	u's are residuals
(eq3) $\kappa_i = \alpha_0 + \alpha_1 y_i + \alpha_2 p_i + u_{3i}$	α, β, γ & δ are coefficients estimated
(eq4) $u_{3i} = \delta_0 + \delta_1 r^j_i + u_{4i}$	

Table 6. Regressions for the largest J-religions

For 100 countries	(1) Economy	(2) Christians	(3) Muslim	(4) Hindu	(5) Buddhist	(6) Orient	(7) Tribal
Model M1							
Religion alone		1.74 (2.8)	-2.66 (3.5)	-1.33 (0.5)	-0.41 (0.3)	2.78 (1.2)	-3.61 (1.5)
Model M2							
Constant	-6.25 (4.7)	-6.13 (4.6)	-5.85 (4.1)	-6.43 (4.9)	-6.23 (4.7)	-6.25 (4.7)	-6.87 (4.9)
y (log gdp)	1.43 (9.9)	1.34 (9.3)	1.39 (9.1)	1.45 (10.1)	1.43 (9.8)	1.43 (9.8)	1.49 (9.9)
p (log inf)	-0.39 (4.7)	-0.39 (4.7)	-0.39 (4.7)	-0.38 (4.7)	-0.39 (4.7)	-0.39 (4.7)	-0.38 (4.6)
Religion		0.35 (1.0)	-0.37 (0.8)	-2.41 (1.8)	-0.12 (0.2)	-0.09 (0.1)	1.89 (1.3)
Model M3							
Religion/res.		0.33 (0.9)	-0.32 (0.7)	-2.38 (1.8)	-0.12 (0.2)	-0.09 (0.7)	1.70 (1.3)
R^2 (M1)	-	0.07	0.11	0.00	0.00	0.02	0.02
R^2 (M2 & M3)	0.71	0.71	0.71	0.72	0.71	0.71	0.72
ΔR^2 (rel M2)	-	0.00	0.00	0.01	0.00	0.00	0.01
Reset	37	35	35	35	37	37	34

Table 7. Four Christian denominations: the big divide

For 100 countries	Pre-Reform			Reform		
	(8) Old	(9) Catholic	(10) (8)+(9)	(11) Protestant	(12) Anglicans	(13) (11)+(12)
Model M1						
Religion alone	-2.51 (2.6)	0.22 (0.4)	-0.79 (1.3)	6.03 (7.1)	8.94 (2.3)	5.73 (7.4)
Model M2						
Constant	-6.40 (4.7)	-6.08 (4.6)	-6.28 (4.8)	-5.39 (4.4)	-6.37 (4.9)	-5.49 (4.6)
y (log gdp)	1.44 (9.9)	1.43 (10.0)	1.45 (10.2)	1.26 (9.3)	1.42 (10.0)	1.26 (9.5)
p (log inf)	-0.36 (3.9)	-0.40 (4.8)	-0.35 (4.4)	-0.32 (4.1)	-0.37 (4.4)	-0.30 (4.0)
Religion	-0.39 (0.6)	-0.48 (1.4)	-0.62 (1.8)	2.74 (4.8)	3.90 (1.8)	2.67 (5.1)
Model M3						
Religion/res.	-0.30 (0.6)	-0.47 (1.4)	-0.60 (1.8)	2.20 (4.2)	3.75 (1.8)	2.12 (4.5)
R^2 (M1)	0.06	0.00	0.02	0.34	0.05	0.36
R^2 (M2 & M3)	0.71	0.72	0.72	0.77	0.72	0.77
ΔR^2 (rel M2)	0.00	0.01	0.01	0.06	0.01	0.06
Reset	38	43	45	19	39	22

Table 8. Regressions for other groups and for the Herfindahl index

For 100 countries	Hinduism (4), Buddhism (5) & Orient (6)			Last two groups		Diversity
	(14) (4)+(5)	(15) (5)+(6)	(16) (4)+(5)+(6)	(17) Atheists	(18) Residual	(19) Herfindahl
Model M1						
Religion alone	-0.66 (0.5)	0.45 (0.4)	0.15 (0.1)	0.65 (0.4)	0.91 (0.4)	-0.21 (0.7)
Model M2						
Constant	-6.19 (4.7)	-6.24 (4.7)	-6.22 (4.7)	-6.29 (4.7)	-6.24 (4.7)	-6.07 (4.6)
y (log gdp)	1.42 (9.9)	1.43 (9.8)	1.43 (9.9)	1.43 (9.9)	1.43 (9.8)	1.41 (9.8)
p (log inf)	-0.39 (4.8)	-0.39 (4.7)	-0.39 (4.7)	-0.39 (4.7)	-0.39 (4.7)	-0.40 (4.9)
Religion	-0.72 (1.0)	-0.10 (0.1)	-0.49 (0.9)	-0.42 (0.5)	0.21 (0.2)	-0.25 (1.4)
Model M3						
Religion/res.	-0.72 (1.0)	-0.10 (0.2)	-0.49 (0.9)	-0.42 (0.5)	0.20 (0.2)	-0.25 (1.4)
R^2 (M1)	0.00	0.00	0.00	0.00	0.00	0.00
R^2 (M2 & M3)	0.71	0.71	0.71	0.71	0.71	0.72
ΔR^2 (rel M2)	0.00	0.00	0.00	0.00	0.00	0.01
Reset	38	37	36	36	36	43

Table 9. Combining the three groups of variables

100 countries	Old	Old	Variant 1	Variant 2	Variant 3	Variant 4
Pre-Reform Chr	Col (1)	Col (19)	-0.02 (0.4)	0.05 (0.1)	1.00 (1.6)	1.06 (1.7)
Reform Chr	from	from	2.68 (4.2)	2.72 (4.2)	6.81 (7.9)	6.83 (8.0)
Three Asian	Table 6	Table 8	0.11 (0.2)	0.21 (0.3)	2.00 (2.0)	2.02 (2.1)
Tribal			0.32 (0.3)	0.34 (0.3)	-4.15 (2.1)	-4.14 (2.1)
Herfindahl		-0.25 (1.4)	-0.28 (1.7)		-0.22 (0.9)	
y (log GDP)	1.43 (9.9)	1.41 (9.8)	1.25 (8.5)	1.26 (8.5)		
p (log inf)	-0.39 (4.7)	-0.40 (4.9)	-0.31 (4.1)	-0.30 (3.9)		
Constant	-6.25 (4.7)	-6.07 (4.6)	-5.41 (4.2)	-5.60 (4.3)	3.11 (6.5)	3.05 (6.5)
R^2	0.71	0.72	0.78	0.77	0.43	0.43
Reset	37	43	33	23	0.4	0.5

Table 10. Experiments with different combinations of variables

100 countries	Variant 5	Variant 6	Variant 7	Variant 8	Variant 9	Variant 10
Islam		⎫ 0.04 (0.1)	⎫ -0.02 (0.0)			
Pre-Reform Chr	-0.03 (0.1)	⎭	⎭			
Reform Chr	2.70 (4.2)	2.77 (3.3)	2.69 (3.2)	2.69 (4.8)	2.73 (5.1)	2.64 (4.8)
Three Asian	0.09 (0.1)	0.16 (0.2)	0.15 (0.2)	0.12 (0.2)	0.12 (0.2)	
Tribal				0.33 (0.3)		0.29 (0.2)
Herfindahl	-0.28 (1.7)	-0.28 (1.7)		-0.28 (1.7)	-0.28 (1.8)	
y (log GDP)	1.24 (8.9)	1.24 (9.3)	1.25 (9.3)	1.25 (8.8)	1.24 (9.3)	1.27 (8.9)
p (log inf)	-0.31 (4.1)	-0.31 (4.1)	-0.30 (3.9)	-0.31 (4.1)	-0.31 (4.1)	-0.30 (4.0)
Constant	-5.29 (4.4)	-5.32 (4.1)	-5.47 (4.2)	-5.41 (4.2)	-5.29 (4.4)	-5.60 (4.3)
R^2	0.78	0.78	0.77	0.80	0.80	0.77
Reset	30	32	24	30	30	24