

# Determinants of Peace : A Cross-Country Analysis

Kodila-Tedika, Oasis

21 August 2012

Online at https://mpra.ub.uni-muenchen.de/40812/ MPRA Paper No. 40812, posted 22 Aug 2012 13:27 UTC

# DETERMINANTS OF PEACE : A CROSS-COUNTRY ANALYSIS

Draft, Preliminary

Comments welcome (and form is imperfect)

### Oasis Kodila-Tedika<sup>1</sup>

Department of Economics, University of Kinshasa, B.P. 832 KIN XI, Kinshasa, Democratic Republic of Congo. Email: oasiskodila@yahoo.fr

### Abstract

In this study, we try to discover the variables susceptible to affect the peace. To arrive there, we made resort to the analysis in cross-sectional. We find that the institutional variables are auspicious to the peace, especially the political stability. The macroeconomic variables are, on the whole, of the positive and statistically meaningful determinants to the peace, in spite of the fact that some are not robust. The war remains damaging to the peace and this in a robust manner. It is more or less the same report for the inequalities. The effects of the size of nation, the religion and the diversity are not as clear. The human capital seems favorable.

Mots-clés : peace, institution, war, religion, diversité, determinants

<sup>&</sup>lt;sup>1</sup> We thank Christian Bjørnskov and Daniel Hyslop for the data they have available.

## **1** Introduction

According to theoretical predictions, empirical (Gleditsch et al. 2002, Collier and Hoeffler, 2004; Hegre et al., 2002; Collier, Hoeffler and Soderbom, 2004, World Bank 2003), it is far from end wars. Unfortunately we tend also to a kind of concentration these, especially in poor countries. The probability of its occurring is high in pats Border (Martin et al., 2008). In addition, we were able to discover the one hand they were due to reasons as diverse and varied (Elbadawi and Sambanis 2002; Fearon, 2005, Fearon and Laitin, 2003; Hegre et al., 2001, Reynal-Querol, 2002, Collier and Hoeffler, 2002) and secondly they have consequences (Collier and Hoeffler, 2002) both short (Collier, 1999; Sambanis, 2003; Brück, 2001, Colletta and Cullen, 2000; Hoeffler and Reynal -Querol, 2003, Montalvo and Reynal-Querol, 2002; Guha-Sapir and Van Panhuis, 2003; Ghobarah, Huth and Russer, 2003) and long term (Collier, Hoeffler and Pattillo, 2002, World Bank 2003; Doyle and Sambanis 2003; Sambanis, 2000). Another bad news: they tend to last long, especially civil wars on average (Collier, Hoeffler and Soderbom, 2004 Balch-Lindsay and Enterline 2000; Buhaug, Gates and Lujala, 2002, DeRouen, 2003, Elbadawi and Sambanis, 2002).

It becomes clear that the war economy presents us with a little perspective streaming for poor countries. It is therefore essential to mobilize to find peace, because it is important, even for development. Precisely, this study's objective is to identify potential variables that explain the peace. We answer the question what are the determinants of peace. In answering these questions, it will be understood, we reverse the movement that is preferred by far the economics of war. If you can afford it is directly in the economy of peace, as Wagner (1993), Hartzell et al. (2001).

Apart from this introduction, this work opens with the presentation of the flag of peace. The third section presents the methodology and data of the study. Then, we present the results of our study. Finally, we draw a conclusion.

## 2 Peace measure

We use the indicator of Peace of Institute for Economics and Peace (IEP) and developed in consultation with an international panel of peace experts from peace institutes and think tanks with data collected and collated by the Economist Intelligence Unit. This indicator is a composite of several indicators. The table below shows the different indicators.

# \$	Indicator +	Source 🗢	Year(s) 🗢	Coding \$
1	Number of external and internal wars fought	UCDP	2004 to 2009	Total number <sup>[2]</sup>
2	Estimated deaths due to external wars	UCDP	2010	Total number <sup>[2]</sup>
3	Estimated deaths due to internal wars	UCDP	2010	Total number <sup>[2]</sup>
4	Level of organized internal conflict	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
5	Relations with neighbouring countries	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
6	Level of perceived criminality in society	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
7	Number of refugees and displaced persons as percentage of population	UNHCR and IDMC	2009 to 2010	Refugee population by percentage of the origin country's population
8	Political instability	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
9	Level of respect for human rights (political terror scale)	Amnesty International	2009	Qualitative measure
10	Potential for terrorist acts	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
11	Number of homicides	UNCTS	2005 to 2009	Intentional homicides, including infanticide, per 100,000 people
12	Level of violent crime	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
13	Likelihood of violent demonstrations	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
14	Number of jailed persons	ICPS	2010	Persons incarcerated per 100,000 people
15	Number of police and security officers	UNCTS	2008 to 2010	Civil security officers per 100,000 people <sup>[3]</sup>
16	Military expenditure as a percentage of GDP	IISS	2009 to 2010	Cash outlays for armed forces, as a percentage of GDP <sup>[4]</sup>
17	Number of armed services personnel	IISS	2010	Full-time military personnel per 100,000 people
18	Imports of major conventional weapons	SIPRI	2009 to 2010	Imports of major conventional weapons per 100,000 people <sup>[5]</sup>
19	Exports of major conventional weapons	SIPRI	2009 to 2010	Exports of major conventional weapons per 100,000 people <sup>[5]</sup>
20	Funding for UN peacekeeping missions	IEP	2007 to 2010	Total number
21	Number of heavy weapons	IEP	2009	Weapons per 100,000 people <sup>[6]</sup>
22	Ease of access to small arms and light weapons	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5
23	Military capability or sophistication	EIU	2010 to 2011	Qualitative scale, ranked 1 to 5

Source<sup>2</sup>: Wikipedia (http://en.wikipedia.org/wiki/Global\_Peace\_Index), à partir des différents rapports de Institute for Economics and Peace, Economist Intelligence Unit (2011). (2) In this case, a conflict is defined as, "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year." (3) Excludes militia and national guard forces. (4) This includes, "cash outlays of central or federal government to meet the costs of national armed forces—including strategic, land, naval, air, command, administration and support forces as well as paramilitary forces, customs forces and border guards if these are trained and equipped as a military force." (5) This includes transfers, purchases, or gifts of aircraft, armoured vehicles, artillery, radar systems, missiles, ships, engines

Indicators not already ranked on a 1 to 5 scale were converted by using the following formula: x=(x-Min(x))/(Max(x)-Min(x)) where Max(x) and Min(x) are the highest and lowest values for that indicator of the countries ranked in the index. The 0 to 1 scores that resulted were then converted to the 1 to 5 scale. Individual indicators were then weighted according to the research team's judgment of their importance. The scores were then tabulated into two weighted sub-indices: internal peace, weighted at 60% of a country's final score, and external peace, weighted at 40% of a country's final score

A low score corresponds to a better situation.

<sup>2</sup> We have checked with the main source. You can find the main source here: http://www.visionofhumanity.org/wp-content/uploads/PDF/2010/2010%20GPI%20Results%20Report.pdf (21 août 2012)

## **3** Data and method

The nature of the data used and their sources of origin are included in the appendices for convenience. Variables are historical (colonial origin, origin of law and the lagged variables to take into account the problems already likely to reverse causality), socio-cultural (linguistic, ethnic and religious, religion, type of religion), socio and economic (inequality, gender), politics (war democracy), demographic (population growth, urbanization) and economic (growth, inflation, openness, size of government, etc..). We have attempted to make a base as large as necessary.

We will use essentially any ordinary square (OLS). For all estimates, To adjust for heteroskedasticity, I present White-corrected standard errors. We also use instrumental variables when we consider some relevant variables that could also be explained by the dependent variable.

## 4 Results

Our results are divided into two sub-sections. The first sub-section presents the results considering all the regressors as exogenous variables in peace. While in the second sub-section raises the hypothesis of exogeneity of all regressors. For, indeed, some variables may cause the peace can also be cause by peace. In such a circumstance, the OLS estimators are not fully effective.

### 4.1 Results with exogenous variables year

At this level also, note that we present the general and specific outcomes. In the specific results, we further dissect the findings of a number of potential determinants that we present in the overall results.

### **General result**

Table 1 shows the results of our initial regressions. In column (1), we have put most of our selected determinants. We find that information and develop, inequality, openness and terms of trade are significant. The increase in inequality is significantly detrimental to peace. But access important information accessible to people easier, more open and favorable terms of trade are statistically conducive to peace. A higher life expectancy does not appear to be essential for peace, which is not necessarily the case for other human capital variable (the average intelligence of a nation). The effect of this second variable of human capital remains positive peace in all regressions. Life expectancy has the same result as another indicator of human capital in the remains of regressions. These

two variables are, however, not significant. Greater diversity and more religion in one country may be conducive to peace. This is the same conclusion for the macroeconomic and institutional variables selected. The size of the state does not have a specific effect. If the geographical size and urbanization seem to be favorable, there is little evidence the same effect on population growth. No statistically positive gender was found, except for column (4). Again, the magnitude of the coefficient is almost zero. War and peace reduce murders in a country and significantly.

But the major weakness of this first regression is to be inserted in the estimation of many variables, but observations. What we are trying to correct in columns (2) and (3). We note that the pus by the variables that were significant remained. Others are also added, in the case of democracy and the size of the state govern picked consumption on GDP. For certain variable, we find that the positive effect remains in the first four estimates, but it is the instability of the significance that problem.

What is quite surprising is the sign change of religion. It becomes unfavorable to peace. War as inequalities keep the same sign and become more statistically significant. More information to affluent population remains essential for peace, but we can not find any trace of the material. Variable economic growth becomes favorable to peace in the rest of the regressions and significantly. Confidence that the rest was positive peace is no longer. This conclusion confidence remains insignificant.

Column (4) has undergone other changes. The index that we used to measure the information and the level of development (number of television per 1000 people) has been changed by the number of persons per 1000 newspaper. The index of the opening [(Export + Import) / GDP] has been replaced by the index of imports of goods and services to GDP. And the index of gender was also changed by the number of women in government. After this change we also serves as a robustness check, we find that diversity is conducive to peace significantly, inflation and urbanization problems become statistically peace. The opening is not as significant in column (1). The previous conclusion on social trust remains the same, but this time significantly.

This shows that only war and inequality remained robust to changes in different specifications, but to changes in the sample size.

	(1)	(2)	(3)	(4)
EthnoLing	539	0423	.018	310**
	(.400)	(.191)	(.185)	(.179)
Religion	654	.372	.421	.063
	(.532)	(.306)	(.340)	(.316)
IQ	004	009	002	016
	(.026)	(.011)	(.009)	(.010)
Life expectancy	.023	003	010	008
	(.01)	(.013)	(.010)	(.013)
Inégalité	.031*	.015**	.014***	.0153***
	(.013)	(.006)	(.004)	(.005)
Information and development	002**	000	000	000
	(.001)	(.000)	(.000)	(.000)
Gender	.006	.004	.006	000
	( .008)	(.005)	(.004)	(.004)
Guerre	.156*	.165***	.144***	.167***
	(.053)	(.038)	(.030)	(.032)
Revc	.994*	.101		
	(.399)	(.160)		
Inflation	004	.002	.004	.005***
	(.003)	(.003)	(.002)	.002
Open	010*	002	001	.000
	(.003)	(.002)	(.002)	(.003)
Growth rate of terms of trade	-13.666*			
	(4.418)			
Ratio of liquid libialities to GDP	055	129		
	(.402)	(.237)		
Urbanization	008	.005	.004	.007**
	(.009)	(.004)	(.003)	(.003)
Growth population	.231	045	050	002
	(.185)	(.060)	(.068)	(.065)
Log Area	034	041	031	017
	(.037)	(.042)	(.035)	(.027)
Gov. consumption share of GDP	-1.343	-1.887	-1.568*	-2.234
	(2.560)	(1.054)	(.864)	(1.429)
Economic Growth	.006	0465	048*	0967***
	(.048)	(.036)	(.027)	(.032)
Democracy	037	0723**	066*	014
	(.038)	(.032)	(.033)	(.024)
Type of economic organization	006	007		
	(.097)	(.066)		
Social Infrastructure	2.358	.489		
	(.915)	(.437)		
Trust	004	.001	.002	.006*
	(.009)	(.004)	(.004)	(.003)
Obs	26	47	47	39
R <sup>2</sup>	0.99	0.88	0.87	0.92

#### Table 1. Main regression

Note: The dependent variable is generalized trust. All regressions include a constant term; *t*-statistics in parentheses are based on robust standard errors; \*\*\* denotes significance at p < 0.01; \*\* at p < 0.05; \* at p < 0.10

Specific result

In this section, we consider the relationship of peace with a number of variables that we considered in Table 1. It is the diversity of religion, war and institutions.

	(1)	(2)	(3)	(4)
Ethnicfrac	.782***		.467**	.349
	(.217)		(.188)	(.214)
Languagefrac	.254	.386**		.230
	(.234)	(.187)		(.224)
Religionfrac	389*	200	129	199
	(.225)	(.182)	(.178)	(.183)
Demo		064***	062***	060***
		(.015)	(.016)	(.0159)
Growth		011	006	006
		(.018)	(.018)	(.018)
Trust		008***	007***	007***
		(.002)	(.003)	(.002)
Obs	62	61	62	61
R <sup>2</sup>	0.30	0.53	0.54	0.56

Tableau 2. Peace and others variables of diversity

Note: The dependent variable is generalized trust. All regressions include a constant term; *t*-statistics in parentheses are based on robust standard errors; \*\*\* denotes significance at p < 0.01; \*\* at p < 0.05; \* at p < 0.10

In Table 2, we reduced the control variables but mostly we chose to go into the details of diversity, considering three different indicators: splitting ethnic, linguistic diversity and the diversity of religions. Column (1) of this table, we met these three indicators. Only religious diversity has a positive effect on peace. There is more to religion, we would be more at peace. This effect is statistically significant. But ethnic diversity seems to be inimical to the peace so highly significant.

In column (2), we assume that ethnic diversity is a perfect substitute for the diversity of languages. When we consider this hypothesis, the diversity of languages becomes a significant problem for peace. The diversity of religions continues to be conducive to peace, but it loses its significance. Columns (3) and (4) lead us to say the same thing. Economic growth remains positive peace, as in previous regressions. But its effect may be due to chance. Social trust and democracy have signs and are highly significatifs positive peace. Countries where people move in democracy and trust each other tend to be conducive to peace. The same conclusion can be supported under columns (3) and (4).

Column (3) is the opposite of (2) Diversity in the sense that we readjust our hypothesis we consider the diversity of languages is perfect proxy for ethnic diversity. The same conclusion in column (2) persists in any point of view.

In column (4), we assume that the diversity of languages is not necessarily equal to the ethnic diversity. And so, we introduce two variables in the regression. We keep the same

trends, except that the variables are no longer significant diversity. **Religion and peace** 

	(1)	(2)
Catholics	.002	001
	(.002)	(.003)
Orthodox	000	002
	(.002)	(.003)
Muslims	.006**	.003
	(.003)	(.003)
Buddhists	005	012*
	(.005)	(.006)
Hindus	.009***	.006**
	(.002)	(.003)
Protestants	002	007 **
	(.002)	(.002)
Jew	.068	.049
	(.086)	(.077)
Obs	62	62
R2	0.24	0.30

Note: The dependent variable is generalized trust. All regressions include a constant term; *t*-statistics in parentheses are based on robust standard errors; \*\*\* denotes significance at p < 0.01; \*\* at p < 0.05; \* at p < 0.10

Judaism, Hinduism, Catholicism and Islam have a negative sign for peace. Buddhism and Protestantism are favorable in terms of these results. But only Hinduism and Islam have statistically significant effects.

To test the robustness of these results, we change proxies for Islam, Catholicism and Protestantism. We report the religion over the population in 1980, as does La Porta et al. (1999). Overall, the conclusion bound to the column (1) remains except for Catholicism, which is conducive to peace. But the significance of certain variables change. Protestantism is significant, as Buddhism. The effect of Islam is no longer statistically unfavorable peace. Only the conclusion related to Hinduism persists. It would be inimical to the peace, statistically significant.

#### War and peace

	(1)	(2)	(3)
War	.159***	.743***	.529***
	(.057)	(.157)	(.095)
Obs	63	63	48
R <sup>2</sup>	0.14	0.22	0.39

Table 3. Robustness check for war

Note: The dependent variable is generalized trust. All regressions include a constant term; *t*-statistics in parentheses are based on robust standard errors; \*\*\* denotes significance at p < 0.01; \*\* at p < 0.05; \* at p < 0.10

In column (1), we take the same proxy used previously. It is Number of armed conflicts, internal and external, in Which the government was Involved, average of years 1995-2000, as classified by Uppsala Conflict Data Program. In column (2) we will use the sum of ratings for Average of Uppsala Conflict Data Program of country is: extrasystemic armed conflict, armed conflict interstate, internal armed conflict, and internationalized internal armed conflict, for years 1995-2000. Ratings go from 0 (no conflict of this type), 1 (minor conflict), 2 (intermediate conflict), 3 (war). And in the last column, we use the dummy for countries Participated in at least That one external war over the period, 1960-1985.

Whatever the proxy used, the same conclusion from Table 1 persists. The little remains statistically unfavorable peace. And in the table 3 shows the same magnitude in terms of significance.

#### Peace and institution

In this section, we test the relationship peace and institution. In a first step, we will look at democracy and just after studying the effect of this meta-institution, we will look at the effect of certain dimensions of country institutions on peace.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Democracy	083***	040***						
	(.018)	(.017)						
IQ		019***		028***		026***		027***
		(.006)		(.008)		(.007)		(.007)
Inequality		.009**		.008		.007		.006
1 0		(.005)		(.005)		(.005)		(.005)
Open		004**		006***		006***		005***
		(.002)		(.002)		(.002)		(.002)
Economc		025		017		020		023
Growth		(.016)		(.021)		(.020)		(.019)
Polright			.089***	.006			048	077**
			(.024)	(.025)			(.059)	(.038)
Civillib					.134***	.036	.186**	.117**
					(.034)	(.026)	(.073)	(.047)
Obs	62	57	59	54	59	54	59	54
R <sup>2</sup>	0.36	0.69	0.17	0.65	0.26	0.66	0.27	0.69

#### Table 4. Democracy and peace

Note: The dependent variable is generalized trust. All regressions include a constant term; *t*-statistics in parentheses are based on robust standard errors; \*\*\* denotes significance at p < 0.01; \*\* at p < 0.05; \* at p < 0.10

Columns (1) and (2) show the effect of democracy on peace. The conclusion is clear: democracy, on the whole, is favorable to peace. Significance is strong. What is quite interesting is that the explanatory power of this variable on peace (36%). This is

significant. In regressions (3) and (4), we consider one dimension of democracy. This is the same exercise in (5) and (6). It can be seen in (3) that the variable political rights or political freedom is inimical to the peace significantly. Once we control for other variables, it is more meaningful but it keeps the same sign. This is the same conclusion that emerges for civil liberty. By combining these two dimensions of democracy, we realize that civil liberty keeps the same sign and becomes significant. Political freedom, in turn, changes sign to become conducive to peace. In column (7), it is not statistically significant. However, in column (8), it becomes. What remains relatively intact is the explanatory power of these variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Social infrastructure	-1.085***	398*						
	(.153)	(.217)						
ICRG			-1.418***	498**				
			(.158)	(.215)				
Polstab					424***	373***		
					(.061)	(.071)		
Goveff							350***	181***
							(.038)	(.050)
Economic Growth		021		018		018		009
		(.021)		(.022)		(.016)		(.015)
IQ		021***		023 ***		007		018***
		(.007)		(.007)		.007		(.006)
Inequality		.006		.005		.005		.005
		(.005)		(.006)		(.004)		(.005)
Open		005**		004**		002		005***
-		(.002)		(.002)		(.001)		(.002)
Obs	59	54	50	47	62	57	62	57
R <sup>2</sup>	0.42	0.67	0.48	0.67	0.68	0.81	0.52	0.70

Note: The dependent variable is generalized trust. All regressions include a constant term; t-statistics in parentheses are based on robust standard errors; \*\*\*

denotes significance at p < 0.01; \*\* at p < 0.05; \* at p < 0.10

In regressions (1) and (2) of Table 5, it emerges clearly that our indicator of the quality of institutions is significant. Best institutions are conducive to peace. To be sure actually, we change the proxy institutional variable in (3) and (4) of the same table. Again, the same conclusion emerges: the explanatory power of the variable of interest, the magnitude of the coefficient and the direction of the effect remains the same.

In the remaining regressions, we in detail certain aspects of institutions. It is mainly political stability (Postab) and Government Effectiveness (Goveff). The first observation that emerges is the explanatory power of these variables. They can explain, alone, more than 50% of the variation of peace within a country. This is significant. The second observation is the importance of the significance of these variables. They are highly significant, as evidenced by their p-value. Finally, they are conducive to peace. That a country with political stability will tend to be at peace. More it improves, the more peace and intensifies in a country. This is the same conclusion for government efficiency. Governments may therefore promote peace when they are effective.

Moreover, it is a problem of endogeneity of these institutional variables in Table 5, mainly. Countries can easily have peace political stability, effective government institutions or short best qualities. The following sub-section will consider this problem.

### 4.2 Results with variables endogenous year

In Table 6, we instrument only institutional variables. There, reading this table, all the institutional variables are considered conducive to peace. However, they are no longer statistically significant, except for political stability. Indeed, this variable passes all the tests of robustness. It is the variable that stands out from all the others.

	(1)	(2)	(3)	(4)	(5)
	2SLS	2SLS	2SLS	2SLS	2SLS
Trust	001				
	(.007)				
Social		127			
infrastructure		(.378)			
ICRG			298		
			(.667)		
Polstab				456**	
				(.172)	
Goveff					110
					(.121)
Economic	045*	042*	036	039**	035
Growth	(.025)	(.023)	(.023)	(.015)	(.023)
IQ	020***	0178**	023***	008	018***
	(.007)	(.007)	(.007)	(.006)	(.006)
Inequality	.005	.005	.003	.0062**	.005
· ·	(.005)	(.004)	(.005)	(.003)	(.004)
Open	005**	005**	004*	000	005**
-	(.002)	(.002)	(.002)	(.002)	(.002)
Religion	.429	.458	.274	235	.232
	(.308)	(.285)	(.469)	(.325)	(.373)
Obs	54	49	43	50	50
R <sup>2</sup>	0.71	0.71	0.71	0.85	0.73

Table6. Institutions and peace (with endogenous variables)

Tust instrumented as postcommunist monarchy No Pronoun drop, Minimum temperature (Bjørnskov, 2010, 2011, 2012). Social infrastructure, ICRG, PolStab and GovEff instrumented leg\_british leg\_scandivanian leg\_socialist leg\_french, Britcol, Frencol, Spancol, Othercol and Noncol. leg\_german dropped due to collinearity. Note: The dependent variable is generalized trust. All regressions include a constant term; *t*-statistics in parentheses are based on robust standard errors; \*\*\* denotes significance at p < 0.01; \*\* at p < 0.05; \* at p < 0.10

## **5** Conclusion

This study had for objective to determine what are the variables that affect the peace to the level of the countries. We kept, for that to make, a potential variable multitude. And we using the cross-sectional analysis.

Our findings present themselves as follows: the institutional variables are, on the whole, auspicious to the peace. And of all these variables, the one that is different more, it is the political stability. The steadiest politically countries tend to have more peace. The macroeconomic variables are, on the whole, of the positive and statistically meaningful determinants to the peace, in spite of the fact that some are not robust. The war remains damaging to the peace and this in a robust manner. It is more or less the same report for

the inequalities. The effects of the size of country, the religion and the diversity are not as clear. The human capital seems favorable.

### References

- Banque mondiale, (2005), Briser la spirale des conflits. Guerre civile et politique de développement, de boeck, Bruxelles.
- Bjørnskov, C. (2007), Determinants of Generalized Trust: A Cross-Country Comparison. *Public Choice* 130:1–21.
- Bjørnskov, C. (2010), How does social trust lead to better governance? An attempt to separate electoral and bureaucratic mechanisms, *Public Choice* 144: 323–346
- Bjørnskov, C. (2011), Combating Corruption: On the Interplay between Institutional Quality and Social Trust, *Journal of Law and Economics*, Vol. 54, No. 1 (February 2011), pp. 135-159
- Bjørnskov, C. (2012), How Does Social Trust Affect Economic Growth?, Southern Economic Journal, 78(4), 1-21
- Collier, P., A. Hoeffler and M. Söderbom. (2004). "On the Duration of Civil War", *Journal of Peace Research*, 41: 253-73.
- Collier, P., A. Hoeffler and M. Söderbom. (2008). "Post-Conflict Risks", *Journal of Peace Research* 45(4): 461-478.
- Collier, P., and A. Hoeffler. (1998). "On Economic Causes of Civil War", Oxford Economic Papers, 50: 563-73.
- Collier, P., and A. Hoeffler. (2004). "Greed and Grievance in Civil War", Oxford Economic Papers, 56: 563-95.
- Collier, Paul (2000). "Policy for Post-Conflict Societies: Reducing the Risks of Renewed Conflict", paper prepared for "The Economics of Political Violence Conference, March 18, 19, 2000 Princeton University.
- DeRouen, Jr., Karl R. and D. Sobek. (2004), "The Dynamics of Civil War Duration and Outcome," *Journal of Peace Research*, 41 (3): 303-320.
- Doyle, M. and Sambanis. N. (2000), "International Peacebuilding: A Theoretical and Quantitative Analysis." *American Political Science Review* 94: 779-801.
- Elbadawi, I. and Sambanis, N. (2002), How Much Civil War Will We See, Explaining the Prevalence of Civil War, *Journal of Conflict Resolution*, 46(3), 307-334.
- Fearon, J. (2005). "Primary Commodity Exports and Civil War", *Journal of Conflict Resolution*, 49: 483-507.
- Fearon, J. and D. Laitin. (2003). "Ethnicity, Insurgency, and Civil War," American Political Science Review 97, 1 (February): 75-90.
- Fearon, J., and D. Laitin. (2003). "Ethnicity, Insurgency, and Civil War", American Political Science Review, 97: 75-90.
- Hartzell, Caroline A., Matthew Hoddie, and Donald Rothchild. (2001), "Stabilizing the Peace After Civil War: An Investigation of Some Key Variables." *International Organization* 55: 183-208.
- Hegre, H., Ellingsen, T., Gates, S. and Gleditsch, (2001), Toward a Democratic Civil Peace? Democracy, Political Change and Civil War, 1816-1992, American Political Science Review, 95(1), 33-48.

- Kashima, E. S., and Kashima, Y. (1998). Culture and language: the case of cultural dimensions and personal pronoun use. *Journal of Cross-Cultural Psychology*, 29, 461–486.
- La Porta et al. 1999. "The Quality of Government," Journal of Law, Economics, and Organization
- Martin, P., Mayer, T. and Thoeing, M., Make trade not war?, *Review of Economics Studies*, 75(3), 865-890.
- Mason, T. D. and P. J. Fett. 1996. "How Civil Wars End: A Rational Choice Approach." *Journal* of Conflict Resolution. 40: 546-568.
- Mason, T. D. and Krane, D. A. 1989. "The Political Economy of Death Squads." *International Studies Quarterly*. 33: 175-198.
- Quinn, J.M., Mason, T.D., and Gurses, M. (2005), Sustaining the Peace: Determinants of Civil War Recurrence
- Reynal-Querol, M., (2002), Ethnicity, Political Systems and Civil War, *Journal Conflict Resolution*, 46(1), 55-3.
- Sambanis, N. (2004), "What Is Civil War? Conceptual and Empirical Complexities of an Operational Definition." *Journal of Conflict Resolution* 48 (6): 814-858.
- Sambanis, N., (2000), Partition as a Solution to Ethnic War, World Politics, 52(4), 437-483.
- Wagner, R. H. (1993). "The Causes of Peace." Pp. 235-268 in Roy Licklider, ed. *Stop the Killing: How Civil Wars End*. New York: New York University Press.

#### Annexes 1. Nature of data

Variables	Description	Sources
		Roeder, Philip. 2001. Ethnolinguistic fractionalization indices, 1961 and
		1985, http://weber.ucsd.edu/~proeder/elf.htm, downloaded from Quality of
Ethnol ing	Ethnolinguistic fractionalization, 1985, = probability that two randomly selected individuals from a given country will not be from same ethnolinguistic group	Government Database, at Quality of Government Institute, Goteborg
Peligion	Descentage of neonle estimating that the religion is important	Collup World Poll
Mananahar	Durante for each other start the country is a mean and the	
Monarchy	Dummy for whether the country is a monarchy	UIA (2006). World Mateorelegical ergenization, queilable et
Minimum temperature	Average temperature in the coldest month of the year	http://wmo.ch/pages/index_en.html
Postcommunist	Dummy of country has communist past	
No Pronoun drop	Dummy for whether the dominant language allows drop	Kashima and Kashima (1998).
Ethnicfrac	Ethnic fractionalization	Alesina et al. (2003)
Languagefrac	Linguistic fractionalization	Alesina et al. (2003)
Religionfrac	Religoius fractionalization	Alesina et al. (2003)
		World Christian Database; population from Heston et al. (2002), for
Catholics	Percent Catholic	Taiwan from http://www.census.gov/ipc/www/idbsum.html
		World Christian Database; population from Heston et al. (2002), for
Orthodox	Percent Christian Orthodox	Taiwan from http://www.census.gov/ipc/www/idbsum.html
Mualima	Danaant Muslims	World Christian Database; population from Heston et al. (2002), for
wiusiiiiis	refeeld muslims	World Christian Database: nonulation from Heston et al. (2002) for
Buddhists	Percent Buddhists	Taiwan from http://www.census.gov/ipc/www/idbsum.html
		World Christian Database; population from Heston et al. (2002), for
Hindus	Percent Hindus	Taiwan from http://www.census.gov/ipc/www/idbsum.html
		World Christian Database; population from Heston et al. (2002), for
Jews	Percent Jews	Taiwan from http://www.census.gov/ipc/www/idbsum.html
_		World Christian Database; population from Heston et al. (2002), for
Protestants	Percent Protestants	Taiwan from http://www.census.gov/ipc/www/idbsum.html
Britcol	Dummy former British colony	
Frencol	Dummy former French colony.	
Spanporc	Dummy former Spanish or Portuguese colony.	
Othercol	Dummy former colony of state other than Britain, France, Spain, or Portugal	
Noncol	Dummy Never a colony.	

#### Annexes 1. Nature of data (continued)

Variables	Description	Source
		Global Development Network Growth Database, NYU,
		http://www.nyu.edu/fas/institute/dri/global%20development%20network%20growth%20database.h
leg_british	Dummy legal origin: British,	tm
leg_french	Dummy legal origin: French.	Idem
leg_socialist	Dummy legal origin: Socialist.	Idem
leg_german	Dummy legal origin: German.	Idem
leg_scandivanian	Dummy legal origin: Scandinavian	Idel
Catholics	Catholics as % of population 1080	La Porta et al. 1999. "The Quality of Government," Journal of Law, Economics, and Organization, downloaded from Quality of Government Database, at Quality of Government Institute, Goteborg
Brotastants	Protestants as % of population 1980	Idom
Protestants		
Muslims	Muslims as % of population 1980	Idem
Life expectancy		World Bank: World Development Indictors.
		Lynn, R. and Vanhanen, T. (2006). IQ and Global Inequality. Washington Summit Publishers,
IQ	National average intelligence.	Augusta, GA
WAR	Dummy for countries that participated in at least one	Barro and Lee: A Data Set for a Panel of 138 Countries at
WAR	external war 1960-85	http://post.economics.harvard.edu/faculty/barro/data.html
	Number of armed conflicts, external and internal, in which the government was involved, average of years 1995-2000.	Uppsala Conflict Data Program, data downloaded from Quality of Government Database, at Quality of Government Institute, Goteborg University.
	Average for sum of ratings of Uppsala Conflict Data Program of country on: extrasystemic armed conflict, interstate armed conflict, internal armed conflict, and internationalized internal armed conflict, for years 1995- 2000. Ratings go from 0 (no conflict of this type), 1 (minor exercise), 2 (intermediate conflict), 2 (upp)	Data downloaded from Quality of Government Database, at Quality of Government Institute,
	(minor connect), 2 (intermediate connect), 5(war).	UNDP Human Development Report 2004: downloaded from STM103 Global Indicators Shared
Inequality	GINI coefficient	Dataset, Updated Fall 2005, from http://ksghome.harvard.edu/~pnorris/Data/Data.htm

Annexes 1. Nature of data (fin)

Variables	Description	Source
Information and		World Bank, downloaded from STM103 Global Indicators Shared Dataset, Updated
development	Television sets per 1000 inhabitants	Fall 2005, from http://ksghome.harvard.edu/~pnorris/Data/Data.htm
	Newspapers per 1000 inhabitants.	World Bank World Development Indicators
		nterparliamentary Union, Women in Parliament, 2000, downloaded from STM103
		Global indicators Shared Dataset,
Gender	Percentage women in lower house of parliament, I	Updated Fall 2005, from http://ksghome.harvard.edu/~pnorris/Data/Data.htm
		(UNDP, Human Development Report, 2004), downloaded from \$1M103 Global Indicators Shared Dataset Undated Fall 2005 from
	Women in government at ministerial level (as %of total) 2001	http://ksghome.harvard.edu/~pnorris/Data/Data.htm
		Levine R. and Renelt D. A Sensitivity Analysis of Cross-Country Growth
REVC	Average number of revolutions and coups per year 1960-1984	Regressions, The American Economic Review, Vol 82:4.
Inflation		FMI
Open	Exports plus Imports divided by CGDP	Penn World Tables 6.1.
	Imports of goods and services as % GDP	World Bank World Development Indicators
Growth rate of terms of trade		King-Levine data set at http://www.worldbank.org/research/growth/ddkile93.htm
Ratio of liquid libialities to GDP		King-Levine data set at http://www.worldbank.org/research/growth/ddkile93.htm
Annual population growth		Penn World Tables 6.1.
Log Area	Country area, square kilometers	Central Intelligence Agency (2004)
Gov. consumption share of GDP		King-Levine data set at http://www.worldbank.org/research/growth/ddkile93.htm
Economic growth	Growth per capita	Penn World Tables 6.1.
		Polity IV, downloaded from Quality of Government Database, at Quality of
Democracy	Institutionalized democracy score (0 - 10)	Government Institute, Goteborg University.
Polright	Political rights	Freedom House
Civillib	Civil liberties	Freedom House
Type of economic	Type of Economic Organization (Freedom House). Capitalist	Robert E. Hall and Charles I. Jones, "Why Do Some Countries Produce So Much
organization	countries have a value of 4 or 5.	More Output per Worker than Others?" Version 4.00 March
		Robert E. Hall and Charles I. Jones, "Why Do Some Countries Produce So Much
Social Infrastructure	Index of social infrastructure	More Output per Worker than Others?" Version 4.00 March
ICRG	International Country Risk Guide	appendix: http://www.handels.gu.se/~econdhib/DEA.pdf
PolStab	Political Stability	World Bank Governance indicator
GovEff	Government Effectiveness	World Bank Governance indicator
	Share of population saying yes to the question "In general, do	
Trust	you think that most people can be trusted?"	Bjørnskov (2006)