

Appendices for:

**Constitutional Bargaining and
the Quality of Contemporary African Institutions:
A Test of the Incremental Reform Hypothesis**

Roger D. Congleton
and
Dongwoo Yoo

West Virginia University
Department of Economics
Morgantown, WV

January 18, 2017

Appendix 1: African Voting Results for the Constitution of the Fifth Republic

Table A1. Voting Results for the Constitutions of the Fifth Republic of France

Territory	YES (%)	NO (%)
Benin (Dahomey)	97.84	2.16
Burkina Faso (Haute-Volta)	99.18	0.82
Côte d'Ivoire	99.98	0.02
French Sudan	97.53	2.47
Guinea	4.78	95.22
Mauritania	94.04	5.96
Niger	78.43	21.57
Senegal	97.54	2.46

Source: Chafer 2002, p. 179.

Note: "NO" meant outright independence from France. "YES" meant accepting the Constitution of the Fifth Republic, which assured the French government continued authority in French Africa.

Appendix 2: Independence Dates of Former British and French Colonies

Table A2 lists the various dates of formal independence in the former British and French colonies.¹ Note that the very uniform timing is consistent with the shift in European and African interests after WWII and a decade of fine-grained bargaining over the details of independence in which both European and African interests were taken into account.

Table A2: Independence Dates of Former British and French Colonies

British Colonies		French Colonies	
<i>Country</i>	<i>Date</i>	<i>Country</i>	<i>Date</i>
South Africa	5/31/1910 (fully recognized in 1931)	Tunisia	3/20/1956
Egypt	2/28/1922 (fully recognized in 1956)	Morocco	4/7/1956 (from France and Spain)
Sudan	1/1/1956 (from Egypt and Britain)	Guinea	10/2/1958
Ghana	3/6/1957	Cameroon	1/1/1960 (from Britain and France)
Somalia	7/1/1960 (from Italy and Britain)	Togo	4/27/1960
Nigeria	10/1/1960	Mali	6/20/1960
Cameroon*	1/1/1961 (from Britain and France)	Senegal	6/20/1960
Sierra Leone	4/27/1961	Madagascar	6/26/1960
Uganda	10/9/1962	Benin	8/1/1960
Kenya	12/12/1963	Niger	8/3/1960
Malawi	7/6/1964	Burkina Faso	8/5/1960
Zambia	10/24/1964	Côte d'Ivoire	8/7/1960
Tanzania	12/9/1964	Chad	8/11/1960
Gambia	2/18/1965	Central Africa Republic	8/13/1960
Botswana	9/30/1966	Congo	8/15/1960
Lesotho	10/4/1966	Gabon	8/17/1960
Mauritius	3/12/1968	Mauritania	11/28/1960
Swaziland	9/6/1968	Algeria	7/5/1962
Seychelles	6/29/1976	Comoros	7/6/1975
Zimbabwe	4/18/1980 (proclaimed in 1965)	Djibouti	6/27/1977

* Cameroon does not have an independence day; only a reunification day.

¹ Many of the transitional constitutions and the first reformed constitutions are available online. For example, Nigeria's 1960 constitution is available at http://www.worldstatesmen.org/nigeria_const1960.pdf. Nigeria's 1963 constitution is available at <http://www.eienigeria.org/sites/default/files/files/TheRepublicanConstitutionOf1963.pdf>. Unfortunately, subsequent reforms are not as readily available online.

Appendix 3: Independence in the former Portuguese and Belgian Colonies

Our study focuses for the most part on the former French and English colonies because their independence constitutions were products of negotiations and reform. This was less true of the former colonies of Portugal and Belgium, where negotiations were less fruitful; so native interests were less represented during colonial governance. Independence constitutions were also negotiated more rapidly or nonexistent. Portugal itself was essentially a one-party state between 1932 and 1974 and had little interest in promoting civil liberties or democratic governance in its colonies or in negotiations with respect to independence. The Portuguese government was the last to transfer policy-making authority to its colonies, although it also undertook a formal reorganization of its colonies after WWII, possibly because of yardstick competition with the French and British colonies.

During the 1950s the colonies became an overseas province of Portugal. By the early 1970s, the colonies had become nonsovereign Portuguese states. They remained Portuguese territory but with somewhat wider administrative autonomy (Chabal 2002, pp. 29–32). Administrative authority in the colonies, however, was mostly held by Portuguese expatriates.² This, together with Portuguese policies of expropriation and forced labor, provoked peaceful demonstrations by Africans and also some armed conflict. For example, in 1961 black militias attacked both white and black civilians in northeastern Angola. Portugal responded by sending troops to quell the revolt.³ The colonial wars induced Portugal to revise its policies. In 1961 Portugal abolished forced labor and land expropriation. It also attempted to improve social and economic opportunities for Africans (Newitt 1981, p. 219).⁴

² During the Estado Novo period, the number of Portuguese settlers in Angola and Mozambique increased rapidly: increasing in Angola from 30,000 in 1930 to 44,083 in 1940, 78,826 in 1950, 172,529 in 1960, and 335,000 in 1973 and increasing in Mozambique from 18,000 in 1930 to 27,400 in 1940, 48,200 in 1950, 97,200 in 1960, and 200,000 in 1973 (Newitt 1981, p. 164).

³ In combination with other armed conflicts in Guinea-Bissau in 1963 and Mozambique in 1964, these came to be known in Portugal as the Colonial War (1961–75).

(Forced labor for private purposes had been phased out in the British and French colonies much earlier, in 1930 and 1946 respectively. Labor-based taxes continued, however, as had been used in Europe in the nineteenth century and earlier.)

⁴ The reforms reduced uncertainty for investors and increased the free labor supply. As a consequence, the regions in which the Portuguese controlled security experienced robust development during the Colonial War periods (Ferreira 2006; El-Khawas 1974).

In 1974 a military-led coup ended the Portuguese government that had long opposed colonial independence (the Carnation Revolution). The new government was less interested in financing the suppression of African rebels and pledged to end the colonial wars. It began negotiations with the African independence movements and rapidly ceded independence to Portuguese Guinea in 1974 and Cape Verde, Mozambique, São Tomé and Príncipe, and Angola in 1975.⁵

Belgium was also relatively slow to include native Africans in colonial government positions and to negotiate over rights and local authority. As a consequence, it was subject to both peaceful protests, such as strikes and widespread refusal to pay taxes, and violence during the 1950s. To reduce tensions, the Belgian government agreed to a gradual transition to self-governance. Local elections in the Belgian Congo were held in 1957–58. In subsequent negotiations, Congolese leaders—especially Lumumba—demanded quick independence.⁶ The Belgian government agreed to grant full independence by May 1960 as revolts spread and the cost of maintaining law and order increased (Martelli 1962, p. 226).

The Belgian government withdrew its troops, and Belgian expatriates fled the country—leaving the Congo with relatively few experienced administrators—as had happened elsewhere when there was little confidence that post-colonial governments would protect existing property claims or civil liberties (Roth 1979, p. 46). Lumumba became prime minister of Congo and obtained substantial Soviet aid (Okumu 1963, p. 186). He was assassinated in 1961. A few years later, General Mobutu seized power in a bloodless coup and used emergency powers to hold on to office for more than three decades, renaming the country Zaire, nationalizing foreign firms, and using them as sources of patronage.⁷

⁵ After independence, Angola and Mozambique officially became Communist countries, although civil war broke out between groups supported by the Soviet Union and Cuba and other groups supported by the United States and South Africa (Newitt 1981). East-West geopolitics also played a role in foreign aid and to some extent in promoting coups between 1970 and 1992.

⁶ Patrice Lumumba founded the Mouvement National Congolais (MNC) and drafted a demand for full independence for the Belgian Congo in 1958 (O'Balance 2000, pp. 2–10).

⁷ Declassified Belgian archives reveal that the Belgium government had assassinated Lumumba with the aid of the United States to prevent Communist control of mineral fields (de Witte 2000). In 2002 the Belgian government officially admitted participating in the 1961 assassination of Lumumba and apologized to the Democratic Republic of the Congo. General Mobutu generally aligned himself with the West, and his government renamed the country Zaire. The official name changed again in 1997, after a coup removed Mobutu from office. Zaire became the Democratic Republic of the Congo.

Together the panel estimates above and in the appendix suggest that the evolution of political institutions in Africa is consistent with an incremental bargaining model of constitutional reform and that economic development tends to impart a liberal direction to those reforms although the effect is not unidirectional.⁸

Appendix 4: Evidence of the Effects of Economic Development on Institutional Quality

The estimates reported in Table A3 explore the extent to which the previous set of results may exaggerate the effects of constitutionally relevant moments by ignoring differences in the broad trends in economic development within the African nation states. They also attempt to determine whether the results for the former French and British colonies extend to all of Africa. Polity's executive constraint sub-index is used as the dependent variable in the estimates reported.⁹ These estimates require additional adjustments for differences in initial institutional quality; thus, binary variables for both Britain and French origin are included as indicators of initial constitutional characteristics. Addressing the effects of economic development also requires taking account of the extent to which those economic developments reflect differences in constitutional history.

Table A3: Panel Estimates of Institutional Quality, Single and Two-Stage, All African Countries

VARIABLES	(1) Executive constraints	(2) Executive constraints	(3) Executive constraints Fixed Effect	(4) Executive constraints 2SLS	(5) Executive constraints 2SLS
CRM	-0.540*** (0.0930)	-0.868*** (0.106)	-0.907*** (0.0979)	-0.713*** (0.145)	
CRM*Post-1990		0.385*** (0.0687)	0.379*** (0.0699)	0.507*** (0.143)	
Number of coups	-0.116***	-0.0277	-0.0153	-0.408***	-0.383***

⁸ That only eight governments in sub-Saharan Africa left office as a consequence of elections in the period after liberalization pressures emerged in the 1990s is consistent with bargaining theory, because the reforms must be acceptable to those with the authority to adopt them. (The lack of genuine electoral competition after 1990 is discussed in Dietrich and Wright [2015].)

⁹ Estimates for the entire Polity 4 index are available on request. The results are similar but shed less light on the strength of constitutional constraints.

	(0.0202)	(0.0262)	(0.0210)	(0.0481)	(0.0500)
Number of coups *Post-1990		0.139***	0.135***	0.346***	0.324***
		(0.0232)	(0.0167)	(0.0453)	(0.0485)
War					-0.441*
					(0.253)
War*Post-1990					0.587**
					(0.289)
Communist Aid					-1.040***
					(0.211)
Communist Aid*Post-1990					0.525**
					(0.214)
GDP per capita (\$1000)		0.0761***	0.0751**	0.185***	0.181***
		(0.0210)	(0.0303)	(0.0620)	(0.0622)
Britain	1.105**	0.627		0.869***	0.877***
	(0.523)	(0.441)		(0.202)	(0.201)
France	-0.490	-0.489		-0.0573	0.0845
	(0.341)	(0.353)		(0.214)	(0.219)
North Africa	-0.621	-0.698		-2.228***	-2.159***
	(0.530)	(0.464)		(0.213)	(0.213)
Ethnic fragmentation	0.179	-0.525		-0.788***	-0.936***
	(0.937)	(0.816)		(0.305)	(0.307)
Constant	2.918***	3.724***	3.348***	4.850***	4.957***
	(0.666)	(0.594)	(0.0842)	(0.326)	(0.329)
F statistics	81.82***	346.73***	89.92***	532.55***	552.11***
Sargan Statistics				2.29	1.98
H ₀ : Instruments are valid				(p=0.13)	(p=0.15)
Observations	1,324	2,144	2,144	677	677
R-squared	0.248	0.188	0.177	0.431	0.440
Number of countries	50	49	49		
(unbalanced panel)					

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Columns 2, 3, 4, and 5 explore the extent to which economic development may be driving institutional quality, rather than constitutionally relevant moments. Column 2 adds real per-capita GDP to the model estimated in column 1. Columns 3 uses country fixed effects rather than the other national characteristics measures. Columns 4 and 5 use two-stage least squares to isolate the effects of economic development on political institutions from those of political institutions on economic development. The first-stage estimators for the GDP per capita instrument are reported in table A4. In general, economic development, measured as real per-capita GDP, has a positive effect on institutional quality, although including the per-capita GNP variable does not substantially improve model fit.

Table A4. First Stage Results for the GDP Instrument

VARIABLES	(1) GDP per capita (\$1000)	(2) GDP per capita (\$1000)
Number of days with rain	0.0179*** (0.00149)	0.0176*** (0.00147)
Britain-kept all	3.216*** (0.440)	3.242*** (0.434)
CRM	-0.300* (0.171)	
CRM*Post-1990	0.451*** (0.161)	
Number of coups	-0.0927* (0.0547)	-0.0134 (0.0577)
Number of coups*Post-1990	-0.0278 (0.0530)	-0.110** (0.0561)
War		0.644** (0.290)
War*Post-1990		-0.889*** (0.329)
Communist Aid		-0.784*** (0.238)
Communist Aid*post90		1.187*** (0.226)
Britain	-1.091*** (0.239)	-1.125*** (0.236)
France	-1.797*** (0.232)	-1.844*** (0.235)
Ethnic fragmentation	-0.433 (0.354)	-0.505 (0.354)
North Africa	0.535** (0.253)	0.548** (0.251)
Constant	2.243*** (0.294)	2.303*** (0.293)
F statistics (partial out)	96.23***	96.66***
Observations	677	677
R-squared (partial out)	0.224	0.225
R-squared	0.379	0.399

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

We use “number of days with rain” as a major instrumental variable for GDP. The annual data for the number of days with rain is available for limited years from historical weather data in Africa (<http://en.tutiempo.net/climate/africa.html>). We assume the number of days with rain is related to GDP, but exogenous to the quality of political institutions. For over-identification test we also employ Ng'ong'ola (1992) classification of the extent to which eminent domain protections were kept or eliminated within the British colonies (See Appendix 5 for details). The

over-identification test with “Britain-kept all” indicates that our instruments are good ones. (The regression results are robust without the additional instrument, Britain-kept all). The high R-square of the first stage indicates that our instruments are not likely to add unnecessary noise to the second stage estimates. Note that the column 4 estimates are very similar to the results in column 2, and suggest that economic development has an independent positive effect on the quality of political institutions, although the number of constitutionally relevant moments remains statistically significant and the model fit is not substantially improved.

Coefficients for the CRM variable and interactive terms are of the expected sign and statistically different from zero around the .01 significance level in every estimate. The model fits are again relatively good, with F-statistics significant at the .01 level. The British binary variable is significant and positive in 2SLS models estimated, which is consistent with the hypothesis that the British independence institutions were of somewhat higher quality than the French ones, possibly because of differences in eminent domain laws or possibly because British colony-by-colony negotiations produced somewhat more robust constitutions. The French binary variables are generally not significantly different from zero in this series of runs—although it is in the two-state estimate and has the expected sign. This suggests that the French, Portuguese, and Belgian histories are more similar constitutionally than expected, once adjusted for location. The ethnic fractionalization coefficients again are not statistically significant. The Northern African countries tend to have lower constitutional quality in the full sample runs, suggesting that fewer liberal reforms were adopted in North African countries in the post-1990 period than in other parts of Africa. Regression results are robust when we use more detailed specification in column 5.

Appendix 5: Quasi-Cross Sectional Estimates of the Incremental Reform Model

It can be argued that panel methods are incapable of sorting out complex lag structures, nonlinearities, and interdependencies among variables in constitutional political economy models. With these statistical issues and the path dependency implied by incremental models of constitutional reform in mind, we next examine how contemporary institutional quality is affected by past conditions.

As indicators of the constitutionality of governance, we use the Polity index of executive constraints, a rule of law measure from the most recent Worldwide Governance Indicators from the World Bank and the Civil Liberty Index from Freedom House. The World Bank Rule of Law

Index measures the strength of property law: quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. The Freedom House index includes rule-of-law indicators and various civil liberty indicators, including political speech and assembly rights. (Low scores indicate high civil liberties for this index.) Averages for 2000–2012 are used as dependent variables.¹⁰ To eliminate possible biases and spurious correlations introduced by short-term interdependences among the explanatory and dependent variables, we use values from 1994 for the CRM index and ethnic fragmentation, and colonial ruler in 1955.

Under an incremental model of reform, the institutions of the mid-1990s would affect both affect the prospects for and results of future reforms. The smaller the incremental reforms acceptable to those with the authority to adopt reforms, the more important starting points tend to be. When reforms have an illiberal trend, as was the case in the period through 1990, those reforms tend to reduce the quality of a nation's institutions. In a negotiation environment that favors liberal reforms, a lower starting point implies greater prospects for improvements. However, incrementalism implies that lower institutional quality is likely to be achieved by countries with relatively lower starting points. In a revolutionary model of reform, the worst countries would have a greater probability of revolution and of major reforms, and so might achieve the best results.

Table A5 reports quasi-cross-sectional estimates for all African countries. The results suggest that mid-1990s institutions have significant effects on contemporary institutional quality, as implied by a model of incremental reform. Model fits are relatively good; all F-statistics are significant at 5 percent levels or better. Coefficients for the CRM index are statistically significant and of the predicted sign in each estimate. Coefficients for the associated colonial power are less so; British origin is statistically significant only in the civil law runs. The signs of those coefficients are nonetheless consistent with the results above and the historical narrative concerning the independence constitutions. Location in Northern Africa, with its very different history, also tends to reduce the quality of contemporary institutions as measured by the civil liberty and executive constraint indexes.

¹⁰ We use the most recent values for the Rule of Law Index, which run through 2012. The Kaufmann, Kraay, and Mastruzzi (2007) indicators have recently been updated and are available at <http://info.worldbank.org/governance/wgi/index.aspx#home>.

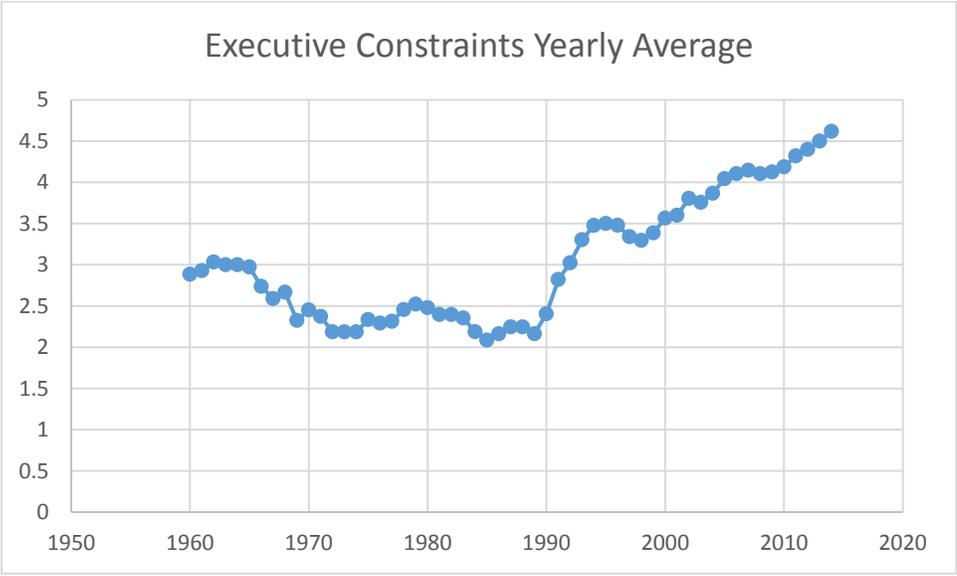
Table A5: Cross-Sectional Estimates of Contemporary Institutional Quality, All African Countries

	Executive Constraints		Quality of Civil Law Institutions		Quality of Civil Liberty Protections	
	1	2	1	2	1	2
CRM 1994	-0.57*	-0.62*	-0.36**	-0.32**	0.63**	0.61*
(t-value)	(-2.34)	(-2.51)	(-4.58)	(-3.90)	(3.38)	(3.17)
British	0.69	0.63	0.38†	0.35†	-0.57	-0.65
	(1.17)	(1.11)	(1.98)	(1.77)	(-1.24)	(-1.42)
French	-0.38	-0.25	0.14	0.12	-0.19	-0.41
	(-0.67)	(-0.45)	(0.73)	(0.62)	(-0.43)	(-0.91)
Ethnic fragmentation		-0.60		-0.43		0.21
		(-0.61)		(-1.29)		(0.28)
North Africa		-1.72*		0.14		1.27†
		(-2.16)		(0.51)		(2.00)
Constant	4.95**	5.55**	-0.33†	-0.09	3.53**	3.43**
	(8.22)	(6.70)	(-1.75)	(-0.34)	(7.87)	(5.34)
F statistics	3.19*	2.97*	8.21**	5.48**	4.28**	3.25*
Adjusted R-squared	0.118	0.167	0.297	0.309	0.161	0.184
Breusch-Pagan Test						
Statistic for homoscedasticity	2.29	1.25	0.93	0.42	0.50	1.91
(chi square) H ₀ : Constant Variance	Accept	Accept	Accept	Accept	Accept	Accept
N	50	50	52	51	52	51

Note: T-values in parentheses.

† Significant at 10% level, * Significant at 5% level, ** Significant at 1% level.

Appendix 6: The Unraveling and Rebuilding of African Constitutional Constraints, 1960–2013



Source: Polity IV Project, Political Regime Characteristics and Transitions, 1800–2013