

Does Colonial Origin Really Matter for Economic Growth in sub-Saharan Africa?

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Context of the Study

- Debate on Colonisation & Economic Growth
- Debate on Colonial Origin Vs. Legal Origin
- My previous work on Colonisation

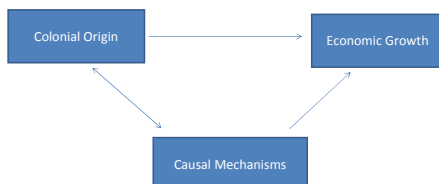
Why Should Colonial Origin Matter for Growth?

- Law or legal institutions
- Education or human capital institutions
- Institutions of Trade & Openness
- Geographical factors or 'Selection Bias'

Objectives of the Paper

- Question 1: Does colonial origin matter for growth in SSA?
- Question 2: If yes, what are its channels of transmission? And if no, why does it not matter?

Empirical Strategy



Model Specification

$$y_{it} = X_{it}\beta + Z_{it}\eta + \alpha_i + \mu_{it} \dots \dots \dots (1)$$
$$i = 1, 2, \dots, N$$
$$t = 1, 2, \dots, T$$
$$\alpha_i \cong IID(0, \sigma_\alpha^2),$$
$$\mu_{it} \cong IID(0, \sigma_\mu^2)$$
$$X = [X_1, X_2], Z = [Z_1, Z_2]$$
$$X_1 = n \times k_1, X_2 = n \times k_2, Z_1 = n \times g_1,$$
$$Z_2 = n \times g_2, n = NT$$
$$k_1 \geq g_2 \Rightarrow HT > FE$$
$$k_1 < g_2 \Rightarrow HT = FE$$

Data

Sample consists of 38 SSA Countries, we use 5-year averages of all variables during 1960-2000, implying $N(38) > T(8)$

- Dependent variable: log of per capita GDP Growth (GROW)
- Regressors:
 - Initial Conditions: logPCGDP60
 - Demographic Factors: GPO
 - Macroeconomic Policy Environment: INFL, BMP, ETHNIC, DNRES

Data

- Physical Capital Accumulation: INV
- Trade & Openness: EXP, OPEN
- Education: AYS15
- Geography: LANDLOCK
- Exchange regime: DFCFA

Sample by Colonial Origin

I. Former British SSA Colonies (16 COUNTRIES)

Botswana, Gambia, Ghana, Kenya, Lesotho, Malawi, Mauritius, Namibia, Nigeria, Sierra Leone, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe.

II. Former French SSA Colonies (15 COUNTRIES)

Benin, Burkina Faso, Cameroon, Central Africa Republic, Chad, Congo Rep, Cote D'Ivoire, Gabon, Guinea, Madagascar, Mali, Mauritania, Niger, Senegal, Togo.

III. Former Portuguese, Belgian, Italian or Spanish SSA Colonies (7 COUNTRIES)

Angola, Burundi, Congo Dem, Equatorial Guinea, Guinea-Bissau, Mozambique, Somalia.

Summary Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Per Capita GDP Growth (Log), 1960-2000	250	0.388	3.788	-12.323	12.913
Per Capita Real GDP in 1960 (log)	296	7.005	0.603	5.948	8.095
Population Growth, 1960-2000	342	2.554	0.925	-4.087	9.313
Ethno-linguistic Fractionalization	306	65.147	24.208	0	93
Inflation Growth Rate, 1960-2000	239	35.822	172.355	-3.009	2087.952
Black Market Premium, 1960-2000	283	59.248	173.817	-20.017	1832.098
Average Schooling Years/Pop above 15, 1960-2000	192	2.471	1.495	0.26	6.28
Annual Measure of Openness to Trade, 1960-2000	283	5.202	20.369	-0.011	141.45
Export share in GDP, 1960-2000	302	28.645	17.602	4.637	83.838
Investment share in GDP, 1960-2000	296	10.856	9.047	0.058	40.123
Democracy Score, 1960-2000	277	-2.822	13.769	-81.4	10
Aggregate Property Rights, 1960-2000	216	4.281	1.138	2.38	6.875
Aggregate Index of Economic Freedom, 1960-2000	216	4.832	0.673	3.64	6.217
Index of Centralization, 1960-2000	183	1.816	10.108	-79.2	7.8
Latitude	296	0.267	13.772	-29.691	20.272
% Country Area exposed to Malaria, 1960-2000	304	0.864	0.285	0	1
Yellow Fever Population in 1952	296	0.691	0.433	0	1.12
War	216	0.204	0.404	0	1
Dummy Natural Resource Rich Countries	304	0.263	0.441	0	1
Dummy Landlockedness	294	0.388	0.483	0	1

Variable	French Former SSA Colonies	British Former SSA Colonies	Other Former SSA Colonies
Per Capita GDP Growth (Log), 1960-2000	1488.812	1267.85**	1515.7
Per Capita Real GDP in 1960	2.58	2.64	2.60*
Population Growth, 1960-2000	66.27	69.71	69***
Ethno-linguistic Fractionalization	13.84	15.05	114.007**
Black Market Premium, 1960-2000	15.98	79.01***	148.752***
Average Schooling Years/Pop above 15, 1960-2000	1.83	3.06***	1.26*
Annual Measure of Openness to Trade, 1960-2000	5	2.49	12.09*
Export share in GDP, 1960-2000	56.63	110.55***	50.13
Investment share in GDP, 1960-2000	8.67	13.50***	9.55
Democracy Score, 1960-2000	-2.28	0.01*	-10.58***
Aggregate Property Rights, 1960-2000	4.05	4.87***	2.94***
Aggregate Index of Economic Freedom, 1960-2000	4.95	4.93	3.90***
Index of Centralization, 1960-2000	-2.83	-0.64	-2.35
Latitude	0.29	-0.89**	-2.27***
% Country Area exposed to Malaria, 1960-2000	0.86	0.82	1.1**
Yellow Fever Population in 1952	0.85	0.81**	0.21**
Dummy Landlockedness	0.33	0.44*	0.27

Notes: Asterisks indicate results of t-tests. The null hypothesis is that the mean is the same as the mean for former French SSA colonies.
Significant at 10%; ** Significant at 5%; *** Significant at 1%.

Colonial Origin & Growth in SSA, 1960-2000

Dependent Variable: Per Capita GDP Growth (Log)

	Model 1	Model 2
Bcorg	1.094**	0.877
	(0.537)	(0.541)
Ocorg	-0.526	-0.521
	(0.786)	(0.786)
Logpcgdp60	0.066	0.081
	(0.452)	(0.454)
Constant	-0.449	-0.557
	(3.275)	(3.288)
No of Obs.	244	238
R-squared	0.03	0.02

The omitted category is French Colonial Origin (FCORG). Standard Errors are presented in parentheses. 1% level of significance is denoted by ***, 5% by ** and 10% by *.

Colonial Origin & its Causal Mechanisms

	AYS15 ¹	EXP ¹	OPEN ¹	INV ¹	PROP ¹	ECOFREE ²
BCORG	1.373***	9.068***	-1.506	4.732***	1.019**	0.139*
	(0.263)	(2.260)	(2.437)	(1.186)	(0.126)	(0.081)
OCORG	-0.412	-0.401	7.483	-0.409	-0.692***	-0.534***
	(0.288)	(2.932)	(4.881)	(1.459)	(0.161)	(0.125)
LOGPCGDP60	0.472**	15.472***	3.198*	-0.707	0.693***	0.522***
	(0.217)	(2.069)	(1.727)	(1.111)	(0.102)	(0.064)
CONSTANT	-1.552	-84.189***	-18.012	13.761*	-0.922	1.192***
	(1.653)	(15.507)	(12.992)	(8.235)	(0.722)	(0.451)
No. OBS	192	259	281	291	216	216
R-SQUARED	0.25	0.28	0.03	0.08	0.43	0.37

Robust standard errors are presented in parentheses. 1% level of significance is denoted by ***, 5% by ** and 10% by *.

(1) These results are robust to the exclusion of Botswana.

(2) Without Botswana, BCORG coefficient increases in magnitude and becomes significant at the 5%.

(3) Without Botswana, BCORG loses significance.

Determinants of Economic Growth in SSA, 1960-2000

Dependent Variable: Per Capita ODP Growth (Log)		
	Model 1	Model 2
Time Variant Exogenous Variables		
GPO	-1.572	-1.506
	(1.927)	(1.927)
BMP	-0.002	-0.002
	(0.003)	(0.003)
INFL	-0.002	-0.002
	(0.016)	(0.016)
EXP	0.088	0.088
	(0.051)	(0.050)
AYS15	-1.208**	-1.199**
	(0.487)	(0.507)
Time Variant Endogenous Variables		
INV	0.014	0.007
	(0.089)	(0.089)
Time Invariant Exogenous Variables		
ETHNIC	-0.033	-0.031
	(0.046)	(0.056)
DNRES	1.968	1.96
	(1.773)	(2.520)
LANDLOCK	-0.413	-0.307
	(1.469)	(1.739)
DFCFA	3.887	3.819
	(4.457)	(4.794)
BCORG	5.533	5.706
	(4.323)	(4.754)
OCORG	3.456	3.633
	(4.775)	(4.889)
LOGPCGDP60	-0.607	-0.365
	(1.807)	(1.833)
CONSTANT	7.045	4.823
	(14.491)	(14.731)
No of Obs.	71	68
No of Groups	21	20
Wald chi2(3)	13.47	11.27
Prob > chi2	0.412	0.588

Standard Errors are presented in parentheses. 1% level of significance is denoted by ***, 5% by * and 10% by .

Colonial Origin, Interaction terms & Growth in SSA

Dependent Variable: Per Capita ODP Growth (Log)			
	Model 1	Model 2	Model 3
Time Variant Exogenous Variables			
AYS15COTHER	2.918**	2.918**	1.297*
	(1.052)	(1.052)	(0.705)
AYS15OTHER	-0.181	-0.181	-0.181
	(0.230)	(0.230)	(0.230)
INVCOTHER	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
EXPOTHER	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
EXPOTHER	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
GPO	-1.572	-1.572	-1.572
	(1.927)	(1.927)	(1.927)
BMP	-0.002	-0.002	-0.002
	(0.003)	(0.003)	(0.003)
INFL	-0.002	-0.002	-0.002
	(0.016)	(0.016)	(0.016)
EXP	0.088	0.088	0.088
	(0.051)	(0.051)	(0.051)
AYS15	-1.208**	-1.208**	-0.976
	(0.487)	(0.487)	(0.705)
Time Variant Endogenous Variables			
INV	0.014	0.014	0.014
	(0.089)	(0.089)	(0.089)
Time Invariant Exogenous Variables			
ETHNIC	-0.033	-0.033	-0.033
	(0.046)	(0.046)	(0.046)
DNRES	1.968	1.968	1.968
	(1.773)	(1.773)	(1.773)
LANDLOCK	-0.413	-0.413	-0.413
	(1.469)	(1.469)	(1.469)
DFCFA	3.887	3.887	3.887
	(4.457)	(4.457)	(4.457)
BCORG	5.533	5.533	5.533
	(4.323)	(4.323)	(4.323)
OCORG	3.456	3.456	3.456
	(4.775)	(4.775)	(4.775)
LOGPCGDP60	-0.607	-0.607	-0.607
	(1.807)	(1.807)	(1.807)
CONSTANT	7.045	7.045	7.045
	(14.491)	(14.491)	(14.491)
No of Obs.	71	71	71
No of Groups	21	21	21
Wald chi2(3)	13.47	13.47	13.47
Prob > chi2	0.412	0.412	0.412

Standard Errors are presented in parentheses. 1% level of significance is denoted by ***, 5% by * and 10% by .

Conclusions (1)

- ✓ Colonial Origin does matter for growth in SSA
- ✓ A recent British colonial history is superior to a French one in fostering growth in the post-colonial era
- ✓ There is evidence that the superior performance of British former colonies is mainly due to higher educational attainment, and not due to export advantage, investment or 'selection bias'

Conclusions (2)

- ❑ Exports, Investment and Natural Resources Endowment have been more detrimental to growth in British former colonies during 1960-2000.
- ❑ Need to contextualise analysis between institutions & growth in specific historical & cultural contexts
- ❑ Country-country comparative analysis might be more informative than cross-country studies