

Web Appendix

to the paper

Growth, Democracy, and Civil War

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TABLE 1: Commodity Price Time Series Data

<u>Annual Commodity Prices</u>																			
Descriptor	Oil	Cotton	Nickel	Gold	Coffee	Tea	Cocoa	Wood	Bananas	Groundnuts	Aluminium	Fish	Tobacco	Iron	Sugar	Uranium	Phosphates	Copper	Livestock
1980	1,55	1,14	0,74	1,31	1,73	1,1	2,05	0,64	0,69	1,31	1,08	1,56	0,67	0,86	0,83	3,26	1,15	0,82	1,06
1981	1,48	1,02	0,67	1,47	1,44	0,99	1,64	0,58	0,74	1,33	0,77	1,44	0,68	0,86	0,72	2,48	1,22	0,65	1,02
1982	1,37	0,88	0,55	1	1,57	0,95	1,37	0,74	0,69	0,88	0,6	1,09	0,76	1	0,68	2,04	1,05	0,56	0,95
1983	1,28	1,02	0,53	1,12	1,48	1,14	1,67	0,69	0,79	1,02	0,88	1,4	0,78	0,89	0,66	2,36	84,4	0,6	0,78
1984	1,24	0,98	0,54	0,95	1,62	1,7	1,89	0,66	0,68	0,89	0,76	1,15	0,82	0,8	0,61	1,77	0,94	0,52	0,77
1985	1,19	0,73	0,55	0,77	1,63	0,98	1,78	0,66	0,7	0,73	0,63	0,84	0,77	0,82	0,61	1,47	0,84	0,53	0,74
1986	0,62	0,58	0,44	0,82	2,16	0,95	1,63	0,72	0,71	0,8	0,7	0,89	0,78	0,81	0,7	1,75	0,85	0,51	0,81
1987	0,79	0,91	0,55	0,98	1,26	0,84	1,58	0,78	0,73	0,56	0,95	0,99	0,81	0,78	0,81	1,73	0,77	0,67	0,86
1988	0,64	0,77	1,55	1,21	1,52	0,88	1,25	0,79	0,88	0,6	1,55	1,08	0,73	0,75	0,9	1,51	0,89	0,98	0,9
1989	0,78	0,92	1,5	1,02	1,2	0,99	0,98	0,89	1,01	0,74	1,19	0,99	0,93	0,86	0,86	1,03	1,01	1,07	0,86
1990	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1991	0,84	0,93	0,92	0,98	0,95	0,91	0,94	1,05	1,03	1	0,8	0,81	1,03	1,07	1,05	0,87	1,05	0,88	0,88
1992	0,83	0,7	0,79	0,88	0,71	0,98	0,87	1,14	0,87	0,61	0,77	0,79	1,01	1,02	1,08	0,88	1,03	0,86	Na
1993	0,73	0,7	0,6	0,83	0,78	0,91	0,88	1,35	0,82	0,87	0,7	0,62	0,79	0,9	1,06	1,03	0,81	0,72	Na
1994	0,69	0,97	0,71	0,97	1,67	0,9	1,1	1,45	0,81	0,86	0,9	0,62	0,78	0,81	1,07	0,97	0,81	0,87	Na
1995	0,75	1,19	0,93	0,95	1,68	0,81	1,13	1,46	0,82	0,77	1,1	0,8	0,78	0,87	1,18	1,2	0,86	1,1	Na
1996	0,89	0,98	0,85	0,97	1,35	0,87	1,15	1,5	0,87	0,76	0,92	0,97	0,9	0,92	1,18	1,6	0,96	0,86	Na
1997	0,84	0,96	0,78	0,92	2,08	1,17	1,28	1,43	0,97	0,82	0,98	0,99	1,04	0,93	1,07	1,24	1,01	0,86	Na
1998	0,57	0,79	0,52	0,72	1,49	1,17	1,32	1,36	0,91	0,75	0,83	1,09	0,98	0,95	1,03	1,07	1,06	0,62	Na
1999	0,78	0,64	0,68	0,72	1,14	1,14	0,9	1,46	0,69	0,72	0,83	0,66	0,91	0,85	1,01	1,03	1,09	0,59	Na
2000	1,23	0,72	0,97	0,73	0,95	1,22	0,71	1,38	0,78	0,74	0,95	0,69	0,88	0,89	0,95	0,85	1,08	0,68	Na
2001	1,06	0,58	0,67	0,68	0,69	0,97	0,86	1,37	1,08	0,71	0,88	0,81	0,88	0,92	0,9	0,89	Na	0,59	Na
2002	1,09	0,56	0,77	0,69	0,68	0,88	1,4	1,32	0,98	0,61	0,82	0,99	0,81	0,9	0,94	1,01	Na	0,59	Na
2003	1,26	0,77	1,09	0,86	0,72	0,96	1,38	1,38	0,69	0,8	0,87	1	Na	0,98	1,02	1,15	Na	0,67	Na

Note: Yearly time series obtained by linearly averaging monthly observations of the IMF commodity price series (available at <http://www.imf.org/external/np/res/externaldata.csv>). Often there are multiple price series available for each commodity. In this case we used the series that was available since 1980 and that contained the least number of missing monthly observations. The livestock time series is used for Somalia only and is generated as = 0.72*lamb price +0.09*swine price +0.09*beef price; the weights are taken from the export structure of livestock in Somalia 1982, as indicated by UN Commodity Trade Statistics Database.

TABLE 2: Commodity Exports of Sub-Saharan EconomiesCommodity Exports of Sub-Saharan Economies

Country	Commodities
Angola	Oil (93)
Benin	Cotton (42), Oil (22)
Botswana	Nickel (10), Copper (6)* [2000]
Burkina Faso	Cotton (57), Gold (20)
Burundi	Coffee (75), Tea (10)
Cameroon	Oil (50), Wood (9)*, Cocoa (8)*, Aluminium (7)*, Coffee (8)*, Cotton (3)* [1990]
Central African Republic	Coffee (11), Wood (19)*, Cotton (11)*, Coffee (4)*, Tobacco (1)* [1993]
Chad	Cotton (85)
Congo	Oil (85)
Ethiopia	Coffee (45), Sugar (2)* [1993]
Gabon	Oil (75), Wood (11)
Gambia	Groundnuts (20), Fish (32), Cotton (3)
Ghana	Cocoa (29), Aluminium (18), Gold (13), Wood (11),
Guinea	Aluminium (64)*, Coffee (6)*, Gold (2)*, Cotton (1)* [1995]
Guinea-Bissau	Oil (14), Fish (28), Banana (50)*, Wood (4)*, Cotton (2)* [1995]
Ivory-Coast	Cocoa (33), Wood (16), Coffee (9)*, Oil (9)* [1995]
Kenya	Tea (19), Oil (13), Coffee (14), Fish(2)* [1990]
Liberia	Iron (62)*, Coffee (6)*, Cocoa (3)* [1984]
Madagascar	Coffee (13), Fish (14), Sugar (7)*, Cotton (4)*, Oil* (1) [1990]
Malawi	Tobacco (68), Tea (11)
Mali	Cotton (62)
Mauritania	Iron (55), Fish (35)
Mozambique	Fish (36), Cotton (8)*, Sugar (7)* [1994]
Namibia	Fish (18)*, Uranium (2)*, Gold (2)*, Copper (1)* [2000]
Niger	Uranium (83)
Nigeria	Oil (93)
Rwanda	Coffee (61), Gold (20)
Senegal	Oil (12), Groundnuts (17), Fish (28), Phosphates (6)*, Cotton (1)* [1990]
Sierra Leone	Aluminium (19), Cocoa (15)*, Coffee (4)*, Fish (1)* [1984]
Somalia	Livestock (90)* [1982]
South Africa	Gold (50)*, Iron (36)*, Aluminium (15)* [2000]
Sudan	Cotton (42), Sugar (6)* [1990]
Swaziland	Sugar (22), Cotton (2)* [1990]
Tanzania	Cotton (18), Coffee (19), Sugar (13), Gold (5)
Togo	Cotton (21), Phosphates (44)
Uganda	Coffee (74)
Zaire	Copper (46), Oil (10)
Zambia	Copper (88)
Zimbabwe	Tobacco (24), Iron (10)*, Cotton (6)*, Copper (2)* [1990]

Note: The data comes predominantly from Deaton (1999) and refers to 1990. When listed commodities comprised less than two thirds of total exports according to the United Nations Commodity Trade Statistics Database, we added commodities using data for the year (indicated in brackets) closest to 1990. Commodity data added to Deaton is marked by an *.

TABLE 3: Three Percent Basket

Sub-Saharan Countries Producing > 3% of World Commodity Supply

<i>Commodity</i>	<i>Country</i>	<i>Source</i>
Oil	Nigeria	http://www.eia.doe.gov/international/ (U.S. Government International Energy Statistics)
Cotton	-	ICAC, Cotton World Statistics, April, 1992
Cocoa	Cameroon, Ivory Coast, Ghana, Nigeria	International Cocoa Association
Coffee	Ivory Coast	International Coffee Association
Tea	Kenya	Food and Agricultural Organization of the United Nations
Wood	-	Food and Agricultural Organization of the United Nations
Livestock	-	Food and Agricultural Organization of the United Nations
Fish	-	Food and Agricultural Organization of the United Nations
Tobacco	Zimbabwe	World Health Organization
Sugar	-	http://www.illovosugar.com/worldofsugar/internationalSugarStats.htm
Nickel	-	United States Geological Survey Mineral Resources Program
Aluminium	-	United States Geological Survey Mineral Resources Program
Gold	South Africa	World Gold Council
Uranium	Namibia, Niger	World Nuclear Association
Groundnuts	-	Food and Agricultural Organization of the United Nations
Copper	-	United States Geological Survey Mineral Resources Program
Phosphates	-	Food and Agricultural Organization of the United Nations

TABLE 4: Economic Growth, Rainfall, and Commodity Prices

<u>Terms of Trade Adjusted Per Capita GDP Growth Rate</u>		
	(1)	(2)
Current Rainfall Growth Rate	0.052*** (3.38)	0.053*** (3.03)
Lagged Rainfall Growth Rate	0.033** (2.33)	0.035** (2.24)
Commodity Price Index Growth Rate, t	0.064** (2.50)	0.072** (2.47)
Commodity Price Index Growth Rate, t-1	0.034 (1.44)	0.022 (0.90)
Commodity Price Index Growth Rate, t-2	0.024 (1.59)	0.036** (2.10)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes
Time Effects	No	Yes
Number of Observations	859	859

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 5: Economic Growth (without ToT adjustment), Rainfall, and Commodity Prices

<u>Real Per Capita GDP Growth Rate without Terms of Trade Adjustment</u>		
	(1)	(2)
Current Rainfall Growth Rate	0.058*** (3.71)	0.055*** (3.03)
Lagged Rainfall Growth Rate	0.037** (2.48)	0.038** (2.24)
Commodity Price Index Growth Rate (3 Year MA)	0.041*** (3.16)	0.039*** (3.20)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes
Time Effects	No	Yes
Number of Observations	859	859

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 6 A: Rainfall and Civil Conflict

UCDP/PRIO 2007 Conflict Data								
	Civil Conflict > 25				Civil Conflict > 1000			
	<u>Incidence</u> (1)	<u>Incidence</u> (2)	<u>Onset</u> (3)	<u>Onset</u> (4)	<u>Incidence</u> (5)	<u>Incidence</u> (6)	<u>Onset</u> (7)	<u>Onset</u> (8)
Current Rainfall	0.025	0.063	0.009	0.047	-0.036	0.008	-0.038	0.007
Growth Rate	(0.59)	(1.63)	(0.20)	(1.15)	(-1.31)	(0.27)	(-1.61)	(0.35)
Lagged Rainfall	-0.071	-0.055	-0.062	-0.062	-0.040	-0.006	-0.049*	-0.017
Growth Rate	(-1.61)	(-1.26)	(-1.02)	(-1.03)	(-1.31)	(-0.20)	(-1.77)	(-0.57)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	Yes	No	Yes	No	Yes	No	Yes
Number of Observations	743	743	469	469	743	743	619	619

Note: Regressions use Huber robust standard errors clustered at the country level; t-values provided in brackets. Method of estimation is least squares. All regressions include country fixed effects and country specific time trends, with even columns including additionally time fixed effects. *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 6 B: Rainfall and Civil Conflict

Miguel, Satyanath, and Sergenti (2004) UCPD/PRIO Conflict Data								
	Civil Conflict > 25				Civil Conflict > 1000			
	<u>Incidence</u> (1)	<u>Incidence</u> (2)	<u>Onset</u> (3)	<u>Onset</u> (4)	<u>Incidence</u> (5)	<u>Incidence</u> (6)	<u>Onset</u> (7)	<u>Onset</u> (8)
Current Rainfall	-0.024	0.066	-0.063	0.043	-0.062**	-0.016	-0.083***	-0.021
Growth Rate	(-0.55)	(1.38)	(-1.31)	(0.86)	(-2.09)	(-0.47)	(-2.66)	(-0.76)
Lagged Rainfall	-0.122**	-0.053	-0.120*	-0.072	-0.069**	-0.028	-0.068**	-0.024
Growth Rate	(-2.35)	(-0.95)	(-1.76)	(-1.01)	(-2.17)	(-0.85)	(-2.27)	(-0.73)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Specific Time Trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	Yes	No	Yes	No	Yes	No	Yes
Number of Observations	743	743	555	555	743	743	625	625

Note: Regressions use Huber robust standard errors clustered at the country level; t-values provided in brackets. Method of estimation is least squares. All regressions include country fixed effects and country specific time trends, with even columns including additionally time fixed effects. *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 7: Civil Conflict Incidence, Rainfall, and Commodity Prices (3% Basket)

	Civil Conflict >1000 Battle Deaths					
	Without Common Time Effects			Common Time Effects Included		
	(1)	(2)	(3)	(4)	(5)	(6)
Current Rainfall Growth Rate	-0.024 (-0.99)	-0.033 (-0.87)	-0.034 (-0.87)	0.011 (0.48)	-0.003 (-0.08)	-0.015 (-0.38)
Lagged Rainfall Growth Rate	-0.030 (-0.78)	-0.041 (-0.74)	-0.051 (-0.88)	-0.011 (-0.27)	-0.028 (-0.46)	-0.041 (-0.70)
ComPI Growth Rate	-0.112*** (-2.96)	-0.145*** (-3.37)	-0.171*** (-4.05)	-0.109*** (-2.85)	-0.143*** (-3.46)	-0.166*** (-4.04)
Current Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.020 (0.58)			0.040 (1.04)	
Lagged Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.011 (0.20)			0.028 (0.47)	
ComPI Growth Rate * Lagged Democracy (Polity IV)		0.154*** (3.12)			0.155*** (3.14)	
Current Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.010 (0.45)			0.031 (1.14)
Lagged Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.018 (0.60)			0.030 (0.95)
ComPI Growth Rate * Lagged Democracy (Freedom House)			0.102*** (3.68)			0.094*** (3.18)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	859	849	859	859	849	859

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. ComPI stands for commodity price index, excluding those commodities where the country produces more than 3% of world supply. Democracy (Polity IV) is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 8: Civil Conflict Onset, Rainfall, and Commodity Prices (3% Basket)

	Civil Conflict >1000 Battle Deaths					
	Without Common Time Effects			Common Time Effects Included		
	(1)	(2)	(3)	(4)	(5)	(6)
Current Rainfall Growth Rate	-0.019 (-1.01)	-0.020 (-0.65)	-0.032 (-0.94)	0.011 (0.56)	0.013 (0.44)	-0.002 (-0.07)
Lagged Rainfall Growth Rate	-0.018 (-0.55)	-0.035 (-0.65)	-0.026 (-0.45)	0.005 (0.12)	-0.013 (-0.21)	-0.002 (-0.03)
ComPI Growth Rate	-0.071* (-1.70)	-0.101** (-2.00)	-0.113** (-2.03)	-0.066 (-1.53)	-0.098** (-2.03)	-0.108** (-2.05)
Current Rainfall Growth Rate * Lagged Democracy (Polity IV)		-0.001 (-0.03)			-0.007 (-0.18)	
Lagged Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.034 (0.59)			0.032 (0.51)	
ComPI Growth Rate * Lagged Democracy (Polity IV)		0.104* (1.92)			0.107** (2.21)	
Current Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.013 (0.65)			0.012 (0.70)
Lagged Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.005 (0.14)			0.002 (0.06)
ComPI Growth Rate * Lagged Democracy (Freedom House)			0.064** (2.15)			0.061** (2.28)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	704	704	704	704	704	704

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. ComPI stands for commodity price index, excluding those commodities where the country produces more than 3% of world supply. Democracy (Polity IV) is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 9: Civil Conflict Incidence, Rainfall, and Commodity Prices

	Civil Conflict >25 Battle Deaths			
	Without Common Time Effects		Common Time Effects Included	
	(1)	(2)	(3)	(4)
Current Rainfall Growth Rate	-0.056 (-1.02)	-0.048 (-0.86)	-0.005 (-0.10)	-0.002 (-0.04)
Lagged Rainfall Growth Rate	-0.075 (-1.09)	-0.110 (-1.61)	-0.053 (-0.82)	-0.083 (-1.29)
ComPI Growth Rate	-0.042 (-0.72)	-0.067 (-1.11)	-0.032 (-0.82)	-0.051 (-0.73)
Current Rainfall Growth Rate * Lagged Democracy (Polity IV)	0.114* (1.77)		0.117* (1.78)	
Lagged Rainfall Growth Rate * Lagged Democracy (Polity IV)	-0.030 (-0.28)		-0.035 (-0.34)	
ComPI Growth Rate * Lagged Democracy (Polity IV)	0.049 (0.60)		0.089 (1.01)	
Current Rainfall Growth Rate * Lagged Democracy (Freedom House)		0.046 (1.11)		0.049 (1.20)
Lagged Rainfall Growth Rate * Lagged Democracy (Freedom House)		0.035 (0.86)		0.023 (0.52)
ComPI Growth Rate * Lagged Democracy (Freedom House)		0.036 (0.85)		0.043 (0.87)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes
Time Effects	No	No	Yes	Yes
No of Observations	849	859	849	859

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. ComPI stands for commodity price index. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 10: Civil Conflict Onset, Rainfall, and Commodity Prices

	<u>Civil Conflict >25 Battle Deaths</u>					
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current Rainfall Growth Rate	0.013 (0.40)	-0.019 (-0.26)	-0.003 (-0.06)	0.040 (1.36)	0.027 (0.57)	0.039 (0.92)
Lagged Rainfall Growth Rate	-0.046 (-0.92)	-0.082 (-0.94)	-0.063 (-0.94)	-0.042 (-0.84)	-0.061 (-0.79)	-0.041 (-0.57)
ComPI Growth Rate	0.001 (0.02)	0.022 (0.34)	-0.008 (-0.11)	0.024 (0.45)	0.051 (0.73)	0.016 (0.20)
Current Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.045 (0.45)			0.005 (0.06)	
Lagged Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.069 (0.72)			0.027 (0.33)	
ComPI Growth Rate * Lagged Democracy (Polity IV)		-0.031 (-0.43)			-0.043 (-0.57)	
Current Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.015 (0.39)			0.007 (0.02)
Lagged Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.017 (0.48)			0.010 (0.23)
ComPI Growth Rate * Lagged Democracy (Freedom House)			0.012 (0.012)			0.010 (0.22)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	511	509	511	511	509	511

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. ComPI stands for commodity price index. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 11: Civil Conflict Incidence and Economic Growth

<u>Civil Conflict >25 Battle Deaths</u>						
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current GDP Growth Rate	-0.465 (-0.62)	-0.750 (-1.00)	-0.936 (-1.03)	0.524 (0.53)	-0.200 (-0.26)	-0.589 (-0.56)
Lagged GDP Growth Rate	-1.471* (-1.85)	-0.505 (-0.59)	-1.581* (-1.68)	-2.170** (-2.06)	-0.683 (-0.85)	-2.012** (-2.04)
Current GDP Growth Rate * Lagged Democracy (Polity IV)		0.934 (0.72)			2.067 (1.22)	
Lagged GDP Growth Rate * Lagged Democracy (Polity IV)		-0.717 (-0.49)			-0.549 (-0.39)	
Current GDP Growth Rate * Lagged Democracy (Freedom House)			0.870 (1.04)			1.940 (1.25)
Lagged GDP Growth Rate * Lagged Democracy (Freedom House)			0.347 (0.38)			-0.387 (-0.27)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	859	849	859	859	849	859

Note: Method of estimation is IV-2SLS with Huber robust standard errors clustered at country level; t-values in brackets. The instruments are the growth rate of current and lagged rainfall as well as the commodity price index growth rate. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 12: Civil Conflict Onset and Economic Growth

<u>Civil Conflict >25 Battle Deaths</u>						
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current GDP Growth Rate	0.055 (0.08)	-0.087 (-0.09)	-0.075 (-0.06)	-0.095 (-0.11)	-0.279 (-0.24)	2.367 (0.66)
Current GDP Growth Rate * Lagged Democracy (Polity IV)		0.292 (0.19)			0.587 (0.45)	
Current GDP Growth Rate * Lagged Democracy (Freedom House)			0.171 (0.18)			0.654 (0.34)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	No	Yes	Yes
No of Observations	511	509	511	511	509	511

Note: Method of estimation is IV-2SLS with Huber robust standard errors clustered at country level; t-values in brackets. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 13: Civil Conflict, Rainfall, and Commodity Prices

	<u>Civil Conflict >1000 Battle Deaths</u>			
	<u>Conflict Incidence</u>		<u>Conflict Onset</u>	
	(1)	(2)	(3)	(4)
Current Rainfall Growth Rate	-0.025 (-0.61)	-0.009 (0.21)	-0.027 (-0.71)	0.005 (0.15)
Lagged Rainfall Growth Rate	-0.047 (-0.80)	-0.040 (-0.65)	-0.021 (-0.34)	-0.001 (-0.02)
ComPI Growth Rate	-0.174*** (-4.10)	-0.167*** (-3.74)	-0.122** (-2.32)	-0.119** (-2.46)
Current Rainfall Growth Rate* Partial Free	-0.013 (-0.26)	0.023 (0.39)	-0.001 (-0.02)	-0.008 (-0.21)
Lagged Rainfall Growth Rate* Partial Free	-0.001 (-0.02)	0.033 (0.47)	-0.029 (-0.41)	-0.006 (-0.07)
ComPI Growth Rate* Partial Free	0.140*** (2.30)	0.148** (2.34)	0.091* (1.85)	0.095* (1.74)
Current Rainfall Growth Rate* Free	0.023 (0.56)	0.062 (1.22)	0.024 (0.63)	0.024 (0.67)
Lagged Rainfall Growth Rate* Free	0.046 (0.81)	0.068 (1.09)	0.024 (0.63)	0.011 (0.17)
ComPI Growth Rate* Free	0.172*** (4.01)	0.144*** (3.03)	0.122** (2.31)	0.109** (2.35)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes
Time Effects	No	Yes	No	Yes
No Observations	859	859	704	704

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. ComPI stands for commodity price index. "Partial Free" is an indicator variable that takes on the value of one if the Freedom House democracy variable is between 3.0 and 5.0. "Free" is an indicator variable that takes on the value of one if the Freedom House democracy variable is less than 3.0. *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 14: Civil Conflict, Rainfall, and Commodity Prices

<u>Civil Conflict >1000 Battle Deaths</u>						
	<u>Conflict Incidence</u>		<u>Conflict Onset</u>			
	(1)	(2)	(3)	(4)	(5)	(6)
Current GDP Growth Rate	-1.801** (-2.60)	-1.802** (-2.27)	-1.564** (-2.12)	-1.361** (-1.99)	-1.571** (-2.34)	-1.250** (-2.32)
Lagged GDP Growth Rate	-1.582* (-1.76)	-1.500 (-1.37)	-0.001 (-0.00)	0.291 (0.23)		
Current GDP Growth Rate* Partial Free	1.540* (1.64)	2.384* (1.75)	0.925 (1.10)	1.382 (1.60)	1.029 (1.28)	1.343 (1.57)
Lagged GDP Growth Rate* Partial Free	1.319 (1.28)	0.734 (0.65)	-0.262 (-0.18)	-0.319 (-0.19)		
Current GDP Growth Rate* Free	1.904** (2.58)	3.887 (1.26)	1.479* (1.83)	1.619* (1.85)	1.463** (2.24)	1.319** (1.99)
Lagged GDP Growth Rate* Free	1.409 (1.57)	-1.254 (-0.36)	-0.034 (-0.03)	-0.533 (-0.44)		
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	Yes	No	Yes	No	Yes
No Observations	859	859	704	704	704	704

Note: Method of estimation is IV-2SLS with Huber robust standard errors clustered at country level; t-values in brackets. The instruments are the growth rate of current and lagged rainfall as well as the commodity price index growth rate. "Partial Free" is an indicator variable that takes on the value of one if the Freedom House democracy variable is between 3.0 and 5.0. "Free" is an indicator variable that takes on the value of one if the Freedom House democracy variable is less than 3.0. *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 15: Civil Conflict Incidence, Rainfall, Agricultural Goods, and Natural Resources

	<u>Civil Conflict >1000 Battle Deaths</u>					
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current Rainfall Growth Rate	-0.023 (-0.94)	-0.029 (-0.75)	-0.030 (-0.74)	0.008 (0.34)	-0.002 (-0.06)	-0.015 (-0.35)
Lagged Rainfall Growth Rate	-0.035 (-0.91)	-0.046 (-0.81)	-0.054 (-0.92)	-0.017 (-0.41)	-0.033 (-0.53)	-0.047 (-0.74)
ComPI Growth Rate (Agric. Comm.)	-0.095** (-2.48)	-0.111** (-2.50)	-0.130*** (-2.88)	-0.071 (-1.51)	-0.082* (-1.64)	-0.103** (-2.06)
ComPI Growth Rate (Nat. Res. Comm.)	-0.050* (-1.73)	-0.062* (-1.82)	-0.070 (-1.63)	-0.072** (-2.06)	-0.089** (-2.10)	-0.097* (-1.83)
Current Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.011 (0.50)			0.043 (1.05)	
Lagged Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.022 (0.31)			0.037 (0.60)	
ComPI Growth Rate (Agric. Comm.) * Lagged Democracy (Polity IV)		0.136** (2.44)			0.144** (2.46)	
ComPI Growth Rate (Nat. Res. Comm.) * Lagged Democracy (Polity IV)		0.040 (0.72)			0.062 (1.01)	
Current Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.009 (0.041)			0.032 (1.12)
Lagged Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.022 (0.71)			0.035 (1.05)
ComPI Growth Rate (Agric. Comm.) * Lagged Democracy (Freedom House)			0.086*** (2.36)			0.092** (2.20)
ComPI Growth Rate (Nat. Res. Comm.) * Lagged Democracy (Polity IV)			0.029 (1.01)			0.032 (0.95)
Test: ComPI(Agric. Comm.) = ComPI (Nat. Res. Comm.), p-value	0.3180	0.3275	0.2835	0.9781	0.8986	0.9300
Test: ComPI(Agric. Comm.) + ComPI(Agric. Comm.)*Inter = ComPI(Nat. Res. Comm.) + ComPI(Nat. Res. Comm.)* Inter, p-value		0.4290	0.9434		0.1867	0.3235
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	859	849	859	859	849	859

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. ComPI (Agric. Comm) stands for commodity price index using only those commodities that can be thought of as agricultural goods. ComPI (Nat. Res. Comm.) stands for commodity price index using only natural resources, which in our case are: oil, coal, nickel, gold, aluminium, iron, uranium, phosphate, and copper. Commodities that we specify as agricultural goods are: cotton, coffee, tea, cocoa, wood, bananas, groundnuts, livestock, sugar, and tobacco. Democracy (Polity IV) is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 16: Civil Conflict Onset, Rainfall, Agricultural Goods, and Natural Resources

	<u>Civil Conflict >1000 Battle Deaths</u>					
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current Rainfall Growth Rate	-0.019 (-0.98)	-0.016 (-0.52)	-0.026 (-0.76)	0.008 (0.43)	0.013 (0.41)	-0.001 (-0.02)
Lagged Rainfall Growth Rate	-0.022 (-0.69)	-0.039 (-0.72)	-0.026 (-0.50)	-0.001 (-0.02)	-0.018 (-0.28)	-0.006 (-0.09)
ComPI Growth Rate (Agric. Comm.)	-0.077* (-1.82)	-0.092* (-1.87)	-0.105* (-1.95)	-0.069 (-1.38)	-0.080 (-1.50)	-0.089 (-1.59)
ComPI Growth Rate (Nat. Res. Comm.)	-0.020 (-1.18)	-0.027 (-1.27)	-0.034 (-1.35)	-0.031 (-1.27)	-0.040 (-1.34)	-0.050 (-1.38)
Current Rainfall Growth Rate * Lagged Democracy (Polity IV)		-0.004 (-0.12)			-0.008 (-0.20)	
Lagged Rainfall Growth Rate * Lagged Democracy (Polity IV)		0.039 (0.67)			0.038 (0.58)	
ComPI Growth Rate (Agric. Comm.) * Lagged Democracy (Polity IV)		0.080* (1.67)			0.076* (1.70)	
ComPI Growth Rate (Nat. Res. Comm.) * Lagged Democracy (Polity IV)		0.021 (0.57)			0.028 (0.77)	
Current Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.010 (0.48)			0.011 (0.55)
Lagged Rainfall Growth Rate * Lagged Democracy (Freedom House)			0.007 (0.20)			0.004 (0.10)
ComPI Growth Rate (Agric. Comm.) * Lagged Democracy (Freedom House)			0.063* (1.88)			0.053 (1.53)
ComPI Growth Rate (Nat. Res. Comm.) * Lagged Democracy (Polity IV)			0.017 (1.18)			0.024 (1.33)
Test: ComPI(Agric. Comm.) = ComPI(Nat. Res. Comm.), p-value	0.1826	0.1897	0.1759	0.4725	0.4946	0.5279
Test: ComPI(Agric. Comm.) + ComPI(Agric. Comm.)*Inter = ComPI(Nat. Res. Comm.) + ComPI(Nat. Res. Comm.)* Inter, p-value		0.8389	0.4323		0.8735	0.8345
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	704	704	704	704	704	704

Note: Method of estimation is least squares with Huber robust standard errors clustered at the country level; t-values in brackets. ComPI (Agric. Comm.) stands for commodity price index using only those commodities that can be thought of as agricultural goods. ComPI (Nat. Res. Comm.) stands for commodity price index using only natural resources, which in our case are: oil, coal, nickel, gold, aluminium, iron, uranium, phosphate, and copper. Commodities that we specify as agricultural goods are: cotton, coffee, tea, cocoa, wood, bananas, groundnuts, livestock, sugar, and tobacco. Democracy (Polity IV) is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 17: Civil Conflict Incidence, Rainfall, Commodity Prices, and Country Characteristics

	Civil Conflict >1000 Battle Deaths									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Current Rainfall Growth Rate	-0.037 (-0.90)	-0.111 (-1.02)	-0.044 (-1.56)	-0.068** (-2.06)	-0.070** (-2.02)	-0.030 (-0.73)	-0.073 (-0.69)	-0.003 (-0.10)	-0.037 (-1.11)	-0.041 (-1.18)
Lagged Rainfall Growth Rate	-0.051 (-0.67)	-0.173 (-1.39)	-0.064* (-1.66)	-0.083* (-1.71)	-0.096* (-1.81)	-0.057 (-0.71)	-0.148 (-1.21)	-0.048 (-1.16)	-0.059 (-1.25)	-0.074 (-1.46)
ComPI Growth Rate	-0.207*** (-3.81)	-0.208** (-2.19)	-0.123*** (-2.97)	-0.151*** (-3.39)	-0.166*** (-3.87)	-0.194*** (-3.80)	-0.196** (-2.41)	-0.122*** (-2.64)	-0.141*** (-2.94)	-0.154*** (-3.45)
Current Rainfall Growth Rate* GDP 1979	0.016 (0.92)					0.034* (1.80)				
Lagged Rainfall Growth Rate* GDP 1979	0.014 (0.48)					0.031 (0.96)				
ComPI Growth Rate* GDP 1979	0.095** (2.52)					0.086** (2.54)				
Current Rainfall Growth Rate* Ethfrac		0.137 (0.83)					0.134 (0.82)			
Lagged Rainfall Growth Rate* Ethfrac		0.228 (1.06)					0.220 (1.01)			
ComPI Growth Rate* Ethfrac		0.156 (1.06)					0.147 (1.05)			
Current Rainfall Growth Rate* Lagged Checks and Balances			0.034 (0.86)					0.025 (0.55)		
Lagged Rainfall Growth Rate* Lagged Checks and Balances			0.060 (1.28)					0.059 (1.03)		
ComPI Growth Rate* Lagged Checks and Balances			0.104** (2.15)					0.127** (2.38)		
Current Rainfall Growth Rate* British Colonial Origin				0.113** (2.14)					0.113** (2.12)	
Lagged Rainfall Growth Rate* British Colonial Origin				0.122 (1.51)					0.105 (1.33)	
ComPI Growth Rate* British Colonial Origin				0.098 (1.35)					0.083 (1.28)	
Current Rainfall Growth Rate* British Legal Origin					0.102** (2.00)					0.109** (2.12)
Lagged Rainfall Growth Rate* British Legal Origin					0.134* (1.69)					0.123 (1.60)
ComPI Growth Rate* British Legal Origin					0.131* (1.80)					0.111* (1.70)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
No of Observations	859	859	837	859	859	859	849	859	859	859

Note: Method of estimation is IV-2SLS. Regressions use Huber robust standard errors, clustered at country level; t-values are listed in brackets. All specifications include country specific time trends and country fixed effects; columns (6)-(10) include additionally year fixed effects. GDP 1979 stands for real per capita GDP in 1979. Ethfrac is the degree of a country's ethnic fractionalization (higher values reflect more ethnic fractionalization). Checks and Balances is an indicator variable that takes on the value of one if the (lagged) aggregated checks and balance variable of the Database of Political Institutions (DPI) exceeds a value of two. British Col. (Legal) Origin is an indicator variable that takes on the value of one if the African country is a former British colony (is of British legal origin). The variables GDP 1979, Ethfrac and British Col are taken from Miguel, Satyanath, and Sergenti (2004); British legal origin from La Porta et al (1999). Instruments are current and lagged rainfall variations as well as the three year MA commodity price index growth rate.
*Significantly different from zero at 90 percent confidence, ** at 95 percent confidence,***at 99 percent confidence.

TABLE 18: Civil Conflict Onset, Rainfall, Commodity Prices, and Country Characteristics

	Civil Conflict >1000 Battle Deaths									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Current Rainfall Growth Rate	-0.021 (-0.60)	0.025 (0.41)	-0.025 (-1.10)	-0.057** (-1.96)	-0.043* (-1.70)	0.001 (0.00)	0.074 (1.22)	0.006 (0.28)	-0.030 (-1.19)	-0.015 (-0.63)
Lagged Rainfall Growth Rate	-0.048 (-0.67)	-0.042 (-0.44)	-0.039 (-0.94)	-0.045 (-0.90)	-0.053 (-1.02)	-0.036 (-0.49)	-0.006 (-0.07)	-0.022 (-0.50)	-0.014 (-0.30)	-0.025 (-0.51)
ComPI Growth Rate	-0.138** (-2.11)	-0.186* (-1.89)	-0.087** (-1.96)	-0.086* (-1.78)	-0.093* (-1.94)	-0.133** (-2.07)	-0.175** (-2.03)	-0.085** (-2.23)	-0.080* (-1.78)	-0.086* (-1.96)
Current Rainfall Growth Rate* GDP 1979	0.005 (0.35)					0.011 (0.74)				
Lagged Rainfall Growth Rate* GDP 1979	0.020 (0.67)					0.026 (0.86)				
ComPI Growth Rate* GDP 1979	0.058* (1.76)					0.052* (1.64)				
Current Rainfall Growth Rate* Ethfrac		-0.066 (-0.58)					-0.099 (-0.88)			
Lagged Rainfall Growth Rate* Ethfrac		0.042 (0.22)					0.020 (0.11)			
ComPI Growth Rate* Ethfrac		0.181 (1.10)					0.169 (1.02)			
Current Rainfall Growth Rate* Lagged Checks and Balances			-0.007 (-0.24)					-0.015 (-0.43)		
Lagged Rainfall Growth Rate* Lagged Checks and Balances			0.011 (0.24)					0.012 (0.21)		
ComPI Growth Rate* Lagged Checks and Balances			0.095** (1.96)					0.105** (2.16)		
Current Rainfall Growth Rate* British Colonial Origin				0.092** (2.17)					0.092** (2.12)	
Lagged Rainfall Growth Rate* British Colonial Origin				0.060 (0.87)					0.040 (0.62)	
ComPI Growth Rate* British Colonial Origin				0.023 (0.28)					0.013 (0.18)	
Current Rainfall Growth Rate* British Legal Origin					0.054 (1.31)					0.054 (1.30)
Lagged Rainfall Growth Rate* British Legal Origin					0.068 (0.99)					0.055 (0.82)
ComPI Growth Rate* British Legal Origin					0.040 (0.48)					0.027 (0.36)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
No of Observations	704	704	683	704	704	704	704	683	704	704

Note: Method of estimation is IV-2SLS. Regressions use Huber robust standard errors, clustered at country level; t-values are listed in brackets. All specifications include country specific time trends and country fixed effects; columns (6)-(10) include additionally year fixed effects. GDP 1979 stands for real per capita GDP in 1979. Ethfrac is the degree of a country's ethnic fractionalization (higher values reflect more ethnic fractionalization). Checks and Balances is an indicator variable that takes on the value of one if the (lagged) aggregated checks and balance variable of the Database of Political Institutions (DPI) exceeds a value of two. British Col. (Legal) Origin is an indicator variable that takes on the value of one if the African country is a former British colony (is of British legal origin). The variables GDP 1979, Ethfrac and British Col are taken from Miguel, Satyanath, and Sergenti (2004); British legal origin from La Porta et al (1999). Instruments are current and lagged rainfall variations as well as the three year MA commodity price index growth rate.
*Significantly different from zero at 90 percent confidence, ** at 95 percent confidence, ***at 99 percent confidence.

TABLE 19: Economic Growth, Civil War Incidence, and Country Characteristics

	Civil Conflict > 1000 Battle Deaths									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Current GDP Growth Rate	-1.236 (-0.54)	-3.413** (-2.24)	-1.646** (-2.24)	-2.178*** (-2.70)	-2.525*** (-2.85)	-1.216 (-0.57)	-2.640** (-2.04)	-1.194 (-1.46)	-1.581** (-2.27)	-1.866** (-2.52)
Lagged GDP Growth Rate	-3.148 (-0.81)	-0.305 (-0.22)	-1.147 (-1.28)	-1.172 (-1.17)	-1.293 (-1.05)	-2.672 (-0.53)	0.414 (0.55)	-1.171 (-1.38)	-0.708 (-0.91)	-1.007 (-1.16)
Current GDP Growth Rate* GDP 1979	-0.668 (-0.20)					-0.923 (-0.22)				
Lagged GDP Growth Rate* GDP 1979	2.212 (0.57)					2.249 (0.45)				
Current GDP Growth Rate* Ethfrac		3.234* (1.70)					3.049 (1.47)			
Lagged GDP Growth Rate* Ethfrac		-0.959 (-0.48)					-2.202 (-1.25)			
Current GDP Growth Rate* Checks & Balances			1.498* (1.92)					1.407 (1.55)		
Lagged GDP Growth Rate*Checks & Balances			1.249 (1.09)					1.808 (1.29)		
Current GDP Growth Rate*British Col. Origin				2.592** (2.41)					2.429* (1.94)	
Lagged GDP Growth Rate*British Col. Origin				-0.002 (-0.00)					-0.747 (-0.54)	
Current GDP Growth Rate*British Legal Origin					2.745*** (2.74)					2.601** (2.39)
Lagged GDP Growth Rate*British Legal Origin					0.650 (0.43)					-0.106 (-0.09)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
No of Observations	859	859	837	859	859	859	859	837	859	859

Note: Method of estimation is IV-2SLS. Regressions use Huber robust standard errors, clustered at country level; t-values are listed in brackets. All specifications include country specific time trends and country fixed effects; columns (6)-(10) include additionally year fixed effects. GDP 1979 stands for real per capita GDP in 1979. Ethfrac is the degree of a country's ethnic fractionalization (higher values reflect more ethnic fractionalization).

Checks and Balances is an indicator variable that takes on the value of one if the (lagged) aggregated checks and balance variable of the Database of Political Institutions (DPI) exceeds a value of two. British Col. (Legal) Origin is an indicator variable that takes on the value of one if the African country is a former British colony (is of British legal origin). The variables GDP 1979, Ethfrac and British Col are taken from Miguel, Satyanath, and Sergenti (2004); British legal origin from La Porta et al. (1999). Instruments are current and lagged rainfall variations as well as the three year MA commodity price index growth rate.

*Significantly different from zero at 90 percent confidence, ** at 95 percent confidence, ***at 99 percent confidence.

TABLE 20: Economic Growth, Civil War Onset, and Country Characteristics

	Civil Conflict > 1000 Battle Deaths									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Current GDP Growth	-1.715** (-2.29)	-2.249* (-1.77)	-1.375* (-1.98)	-1.606** (-2.25)	-1.820** (-2.21)	-1.031* (-1.88)	-1.626 (-1.44)	-1.033* (-1.78)	-0.974* (-1.83)	-1.062* (-1.78)
Current GDP Growth* GDP 1979	0.608 (1.43)					0.427 (1.17)				
Current GDP Growth * Ethfrac		1.888 (1.04)					1.554 (0.86)			
Current GDP Growth* Checks and Balances			1.195 (1.61)					1.348* (1.74)		
Current GDP Growth* British Col. Origin				1.064 (1.07)					0.598 (0.66)	
Current GDP Growth * British Legal Origin					1.357 (1.39)					0.795 (0.92)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
No of Observations	704	704	683	704	704	704	704	683	704	704

Note: Method of estimation is IV-2SLS. Regressions use Huber robust standard errors, clustered at country level; t-values are listed in brackets. All specifications include country specific time trends and country fixed effects; columns (6)-(10) include additionally year fixed effects. GDP 1979 stands for real per capita GDP in 1979. Ethfrac is the degree of a country's ethnic fractionalization (higher values reflect more ethnic fractionalization). Checks and Balances is an indicator variable that takes on the value of one if the (lagged) aggregated checks and balance variable of the Database of Political Institutions (DPI) exceeds a value of two. British Col. (Legal) Origin is an indicator variable that takes on the value of one if the African country is a former British colony (is of British legal origin). The variables GDP 1979, Ethfrac and British Col are taken from Miguel, Satyanath, and Sergenti (2004); British legal origin from La Porta et al. (1999). Instruments are current and lagged rainfall variations as well as the three year MA commodity price index growth rate.

*Significantly different from zero at 90 percent confidence, ** at 95 percent confidence, ***at 99 percent confidence.

TABLE 21: Civil Conflict Incidence, and Economic Growth (without ToT Adjustment)

<u>Civil Conflict >1000 Battle Deaths</u>				
	<u>Incidence</u>		<u>Onset</u>	
	(1)	(2)	(3)	(4)
Current GDP Growth Rate	-1.253* (-1.90)	-0.696 (-1.05)	-1.044* (-1.85)	-0.626 (-1.55)
Lagged GDP Growth Rate	-1.234 (-1.55)	-1.133 (-1.55)		
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes
Time Effects	No	Yes	No	Yes
No of Observations	859	859	704	704

Note: Method of estimation is IV-2SLS with Huber robust standard errors clustered at country level; t-values in brackets. The instruments are the growth rate of current and lagged rainfall as well as the commodity price index growth rate. *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 22: Civil Conflict Incidence, and Economic Growth (IV-Fuller LIML)

<u>Civil Conflict >1000 Battle Deaths</u>						
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current GDP Growth Rate	-1.258** (-2.45)	-1.594** (-2.24)	-1.783** (-2.23)	-0.633 (-0.73)	-1.485 (-1.23)	-1.758** (-2.12)
Lagged GDP Growth Rate	-1.283* (-1.71)	-1.253 (-1.00)	-1.884 (-1.27)	-1.737 (-1.07)	-1.121 (-0.39)	-1.824 (-1.14)
Current GDP Growth Rate * Lagged Democracy (Polity IV)		1.930* (1.64)			3.307* (1.77)	
Lagged GDP Growth Rate * Lagged Democracy (Polity IV)		2.084 (1.24)			1.683 (0.60)	
Current GDP Growth Rate * Lagged Democracy (Freedom House)			1.152* (1.64)			2.422 (1.52)
Lagged GDP Growth Rate * Lagged Democracy (Freedom House)			0.952 (0.84)			-0.563 (-0.38)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	859	849	859	859	849	859

Note: Method of estimation is the Fuller adjusted IV-LIML estimator, with an alpha parameter set equal to one; t-values provided in brackets, computed with Huber robust standard errors. The instruments are the growth rate of current and lagged rainfall as well as the commodity price index growth rate. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 23: Civil Conflict Onset, and Economic Growth (IV-Fuller LIML)

<u>Civil Conflict >1000 Battle Deaths</u>						
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current GDP Growth	-1.140*** (-2.72)	-1.433** (-2.59)	-1.571*** (-2.65)	-0.798* (-1.74)	-1.228** (-2.09)	-1.249** (-2.23)
Current GDP Growth * Lagged Democracy (Polity IV)		1.064 (1.48)			1.867* (1.92)	
Current GDP Growth * Lagged Democracy (Freedom House)			0.850** (2.08)			0.940** (2.07)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	704	704	704	704	704	704

Note: Method of estimation is the Fuller adjusted IV-LIML estimator, with an alpha parameter set equal to one; t-values provided in brackets, computed with Huber robust standard errors. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 24: Civil Conflict Incidence, and Economic Growth (IV-Fuller LIML)

<u>Civil Conflict >1000 Battle Deaths</u>						
	<u>Without Common Time Effects</u>			<u>Common Time Effects Included</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Current GDP Growth Rate	-1.215*** (-2.75)	-1.518** (-2.60)	-1.735** (-2.62)	-0.764 (-1.43)	-1.418** (-2.01)	-1.635** (-2.52)
Lagged GDP Growth Rate	-1.106* (-1.95)	-1.080 (-1.22)	-1.535 (-1.52)	-1.119 (-1.43)	-0.862 (-0.63)	-1.250 (-1.28)
Current GDP Growth Rate * Lagged Democracy (Polity IV)		1.707* (1.77)			2.778** (2.11)	
Lagged GDP Growth Rate * Lagged Democracy (Polity IV)		1.750 (1.43)			1.304 (0.84)	
Current GDP Growth Rate * Lagged Democracy (Freedom House)			1.103** (2.03)			1.807** (2.00)
Lagged GDP Growth Rate * Lagged Democracy (Freedom House)			0.767 (1.02)			-0.315 (-0.34)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	859	849	859	859	849	859

Note: Method of estimation is the Fuller adjusted IV-LIML estimator, with an alpha parameter set equal to four; t-values provided in brackets, computed with Huber robust standard errors. The instruments are the growth rate of current and lagged rainfall as well as the commodity price index growth rate. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.

TABLE 25: Civil Conflict Onset, and Economic Growth (IV-Fuller LIML)

	Civil Conflict >1000 Battle Deaths					
	Without Common Time Effects			Common Time Effects Included		
	(1)	(2)	(3)	(4)	(5)	(6)
Current GDP Growth	-1.039*** (-2.84)	-1.312*** (-2.70)	-1.451*** (-2.76)	-0.697* (-1.86)	-1.097** (-2.23)	-1.135** (-2.36)
Current GDP Growth * Lagged Democracy (Polity IV)		0.949 (1.58)			1.578** (2.15)	
Current GDP Growth * Lagged Democracy (Freedom House)			0.797** (2.19)			0.876** (2.19)
Country Fixed Effects and Country Specific Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Time Effects	No	No	No	Yes	Yes	Yes
No of Observations	704	704	704	704	704	704

Note: Method of estimation is the Fuller adjusted IV-LIML estimator, with an alpha parameter set equal to four; t-values provided in brackets, computed with Huber robust standard errors. Democracy is an indicator variable that is one if the (lagged) Polity IV score exceeds a value of zero. Democracy (Freedom House) is a trivariate variable that takes on a value of 2 if the averaged score of Freedom House's rating of civil liberties and political rights is between 1.0 to 2.5; the democracy (Freedom House) variable is coded as 1 (0) if the average score of Freedom House's rating of civil liberties and political rights is between 3.0 to 5.0 (5.5 to 7.0). *Significantly different from zero at 90 percent confidence, ** 95 percent confidence, *** 99 percent confidence.