Appendix B. Figures and Tables
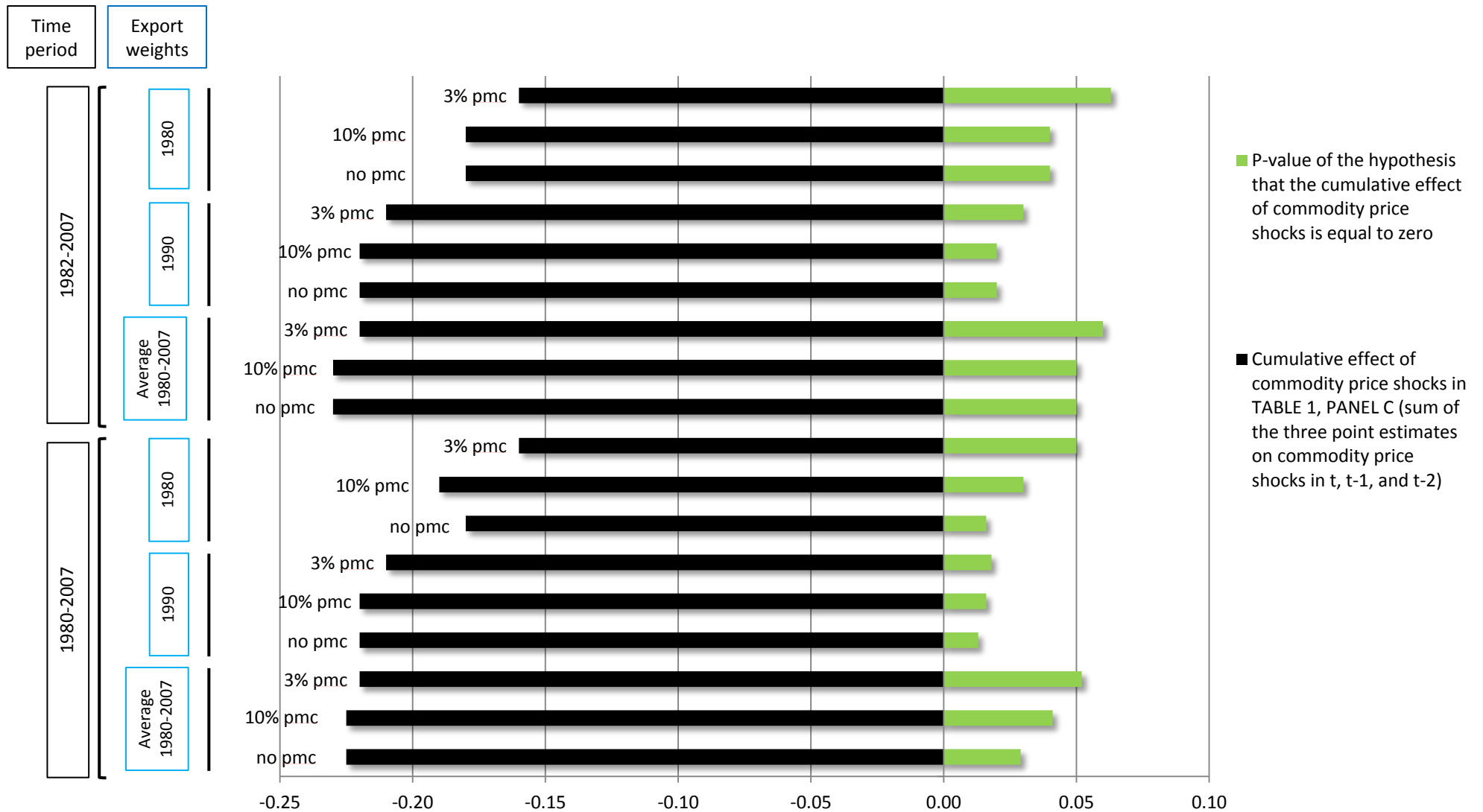
for

International Commodity Prices and Civil War Outbreak: New Evidence for Sub-Saharan Africa and Beyond
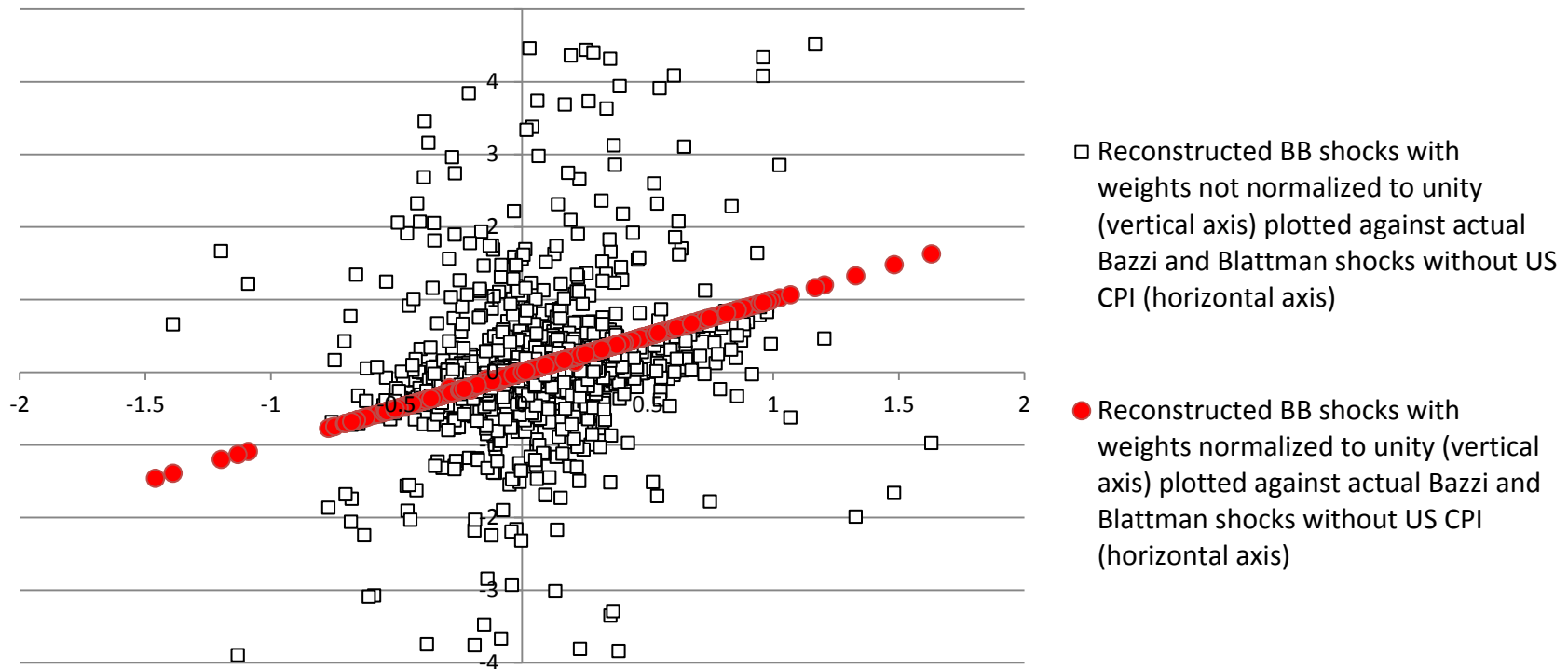
Antonio Ciccone

July 2019

APPENDIX FIGURE 1. Cumulative effect of commodity price shocks on civil war outbreak in Sub-Saharan Africa since 1980

Note: The abbreviation pmc stands for price maker cutoff. The data comes from TABLE 1, PANEL C. Black bars taking negative values denote the cumulative effect of annual commodity price shocks (the sum of the point estimates on the commodity price shocks in t, t-1, and t-2) for all 18 specifications in TABLE 1. Green bars taking positive values denote the p-values of the hypothesis that the cumulative effect is zero. The estimating equation is (9) in the main text. All data is from Bazzi and Blattman (2014).

APPENDIX FIGURE 2. Bazzi and Blattman shocks against reconstructed shocks with and without export weights normalized to unity

Legend:

□ Reconstructed BB shocks with weights not normalized to unity (vertical axis) plotted against actual Bazzi and Blattman shocks without US CPI (horizontal axis)

● Reconstructed BB shocks with weights normalized to unity (vertical axis) plotted against actual Bazzi and Blattman shocks without US CPI (horizontal axis)

Note: See footnote 10 on page 13 in the main text for details on this figure. The Bazzi and Blattman shocks are the non-standardized version of the shocks used in their Online Appendix Table 11, column 2, without the US CPI.

APPENDIX TABLE 1. Annual commodity price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman dataset, 1980-2007 period, 10% price maker cutoff

	BB time varying	average 1980-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Commodity price shock t	-0.061	-0.095*	-0.100*	-0.099*	-0.098**	-0.103**	-0.103**	-0.083*	-0.085*	-0.085*
	(-1.48)	(-1.81)	(-1.88)	(-1.89)	(-2.1)	(-2.18)	(-2.22)	(-1.92)	(-1.96)	(-2.01)
	[0.15]	[0.078]	[0.067]	[0.065]	[0.041]	[0.035]	[0.031]	[0.062]	[0.056]	[0.051]
Commodity price shock t-1	-0.021	-0.039	-0.039	-0.038	-0.038	-0.039	-0.038	-0.036	-0.036	-0.036
	(-0.72)	(-1.0)	(-1.02)	(-1.00)	(-1.04)	(-1.08)	(-1.06)	(-1.08)	(-1.08)	(-1.11)
	[0.474]	[0.32]	[0.31]	[0.323]	[0.30]	[0.287]	[0.296]	[0.286]	[0.285]	[0.275]
Commodity price shock t-2	-0.045	-0.09*	-0.091*	-0.088*	-0.082*	-0.085**	-0.081*	-0.073*	-0.073*	-0.069*
	(-1.28)	(-1.90)	(-1.92)	(-1.86)	(-1.97)	(-2.02)	(-1.9)	(-1.79)	(-1.77)	(-1.69)
	[0.21]	[0.064]	[0.061]	[0.07]	[0.056]	[0.050]	[0.064]	[0.08]	[0.084]	[0.099]
OECD export growth t			-0.024***	-0.024***		-0.025***	-0.024***		-0.024***	-0.024***
			(-7.45)	(-7.38)		(-7.6)	(-7.5)		(-7.26)	(-7.19)
			[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t				-0.27*			-0.266*			-0.272*
				(-1.92)			(1.89)			(-1.95)
				[0.061]			[0.065]			[0.057]
Rainfall (GPCP) squared t				0.115*			0.114*			0.116*
				(1.83)			(1.83)			(1.86)
				[0.074]			[0.074]			[0.069]
Test equality of coefficients on three shocks (p-value)	0.65	0.59	0.57	0.57	0.578	0.5587	0.54	0.68	0.66	0.66
Test sum of the coefficients on three shocks equal zero (p-value)	0.11	0.041	0.035	0.035	0.016	0.013	0.013	0.025	0.024	0.023
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007
Countries	45	45	45	45	45	45	45	45	45	45
R squared	0.079	0.085	0.098	0.105	0.087	0.100	0.108	0.084	0.097	0.104

Note: All data in columns (1), (2), (5), and (8) is from Bazzi and Blattman (2014). The estimating equation is (9) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Column (1) calculates shocks using time-varying export weights as in Bazzi and Blattman (BB), and columns (2)-(10) calculate shocks using time-invariant export weights. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 2. 3-year commodity price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman dataset, 1980-2007 period, 10% price maker cutoff

| | relative commodity export weights (exports of commodity i over total commodity exports): | | | | | | | | |
| | average 1980-2007 | | | 1990 | | | 1980 | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3-year commodity price shock t	-0.074**	-0.076**	-0.075**	-0.072**	-0.075**	-0.073**	-0.064**	-0.064**	-0.063**
	(-2.10)	(-2.16)	(-2.16)	(-2.49)	(-2.58)	(-2.58)	(-2.31)	(-2.33)	(-2.35)
	[0.042]	[0.036]	[0.036]	[0.017]	[0.013]	[0.013]	[0.026]	[0.025]	[0.023]
OECD export growth t		-0.024***	-0.024***		-0.024***	-0.024***		-0.024***	-0.023***
		(-7.61)	(-7.56)		(-7.9)	(-7.83)		(-7.33)	(-7.27)
		[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t			-0.271*			-0.268*			-0.275*
			(-1.96)			(-1.93)			(-1.98)
			[0.057]			[0.06]			[0.054]
Rainfall (GPCP) squared t			0.115*			0.114*			0.117*
			(1.85)			(1.84)			(1.88)
			[0.071]			[0.072]			[0.067]
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1007	1007	1007	1007	1007	1007	1007	1007	1007
Countries	45	45	45	45	45	45	45	45	45
R squared	0.083	0.096	0.103	0.085	0.097	0.105	0.083	0.095	0.103

Note: All data in columns (1), (4), and (7) is from Bazzi and Blattman (2014). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 3. 3-year commodity price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi and Blattman dataset, 1957-2007 period, 10% price maker cutoff

	relative commodity export weights (exports of commodity i over total commodity exports):								
	average 1957-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3-year commodity price shock t	-0.036*	-0.037**	-0.037**	-0.028*	-0.03**	-0.029**	-0.027*	-0.028*	-0.028*
	(-1.97)	(-2.05)	(-2.07)	(-1.93)	(-2.02)	(-2.02)	(-1.81)	(-1.87)	(-1.93)
	[0.055]	[0.046]	[0.045]	[0.06]	[0.049]	[0.05]	[0.077]	[0.068]	[0.06]
OECD export growth t		-0.007***	-0.007***		-0.007***	-0.007***		-0.007***	-0.007**'
		(-4.06)	(-4.07)		(-4.17)	(-4.18)		(-3.96)	(-3.98)
		[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCC) t			-0.132*			-0.131*			-0.134*
			(-1.82)			(-1.8)			(-1.84)
			[0.075]			[0.078]			[0.072]
Rainfall (GPCC) squared t			0.048*			0.047*			0.048*
			(1.86)			(1.84)			(1.88)
			[0.07]			[0.073]			[0.066]
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1805	1805	1805	1805	1805	1805	1805	1805	1805
Countries	45	45	45	45	45	45	45	45	45
R squared	0.104	0.106	0.109	0.104	0.106	0.109	0.104	0.105	0.109

Note: All data in columns (1), (4), and (7) is from Bazzi and Blattman (2014). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 4. Annual commodity price shocks and civil war outbreak beyond Sub-Saharan Africa: Bazzi-Blattman dataset, 1980-2007 period, 10% price maker cutoff

	relative commodity export weights (exports of commodity i over total commodity exports):					
	average 1980-2007		1990		1980	
	(1)	(2)	(3)	(4)	(5)	(6)
Commodity price shock t	-0.056**	-0.056**	-0.053**	-0.053**	-0.042**	-0.041**
	(-2.18)	(-2.17)	(-2.36)	(-2.35)	(-2.16)	(-2.11)
	[0.031]	[0.032]	[0.02]	[0.02]	[0.033]	[0.037]
Commodity price shock t-1	-0.007	-0.006	-0.002	-0.002	-0.013	-0.012
	(-0.31)	(-0.29)	(-0.11)	(-0.11)	(-0.79)	(-0.74)
	[0.75]	[0.772]	[0.915]	[0.913]	[0.429]	[0.458]
Commodity price shock t-2	-0.036	-0.036	-0.033	-0.034	-0.037*	-0.037*
	(-1.35)	(-1.37)	(-1.46)	(-1.5)	(-1.92)	(-1.92)
	[0.179]	[0.173]	[0.147]	[0.136]	[0.057]	[0.057]
OECD export growth t		-0.021***		-0.021***		-0.02***
		(-3.6)		(-3.63)		(-3.64)
		[0.00]		[0.00]		[0.00]
Test equality of coefficients on three shocks (p-value)	0.215	0.216	0.177	0.182	0.425	0.428
Test sum of the coefficients on three shocks equal zero (p-value)	0.085	0.084	0.07	0.066	0.03	0.033
Country fixed effects	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y
Observations	2662	2662	2662	2662	2662	2662
Countries	118	118	118	118	118	118
R squared	0.116	0.121	0.116	0.121	0.116	0.121

Note: All data in columns (1), (3), and (5) is from Bazzi and Blattman (2014). All larger countries in Africa, the Middle East, Latin America, and Asia are included. The estimating equation is (9) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 5. 3-year commodity price shocks and civil war outbreak beyond Sub-Saharan Africa: Bazzi-Blattman dataset, 1980-2007 period, 10% price maker cutoff

	relative commodity export weights (exports of commodity i over total commodity exports):					
	average 1980-2007		1990		1980	
	(1)	(2)	(3)	(4)	(5)	(6)
3-year commodity price shock t	-0.031*	-0.031*	-0.028*	-0.029*	-0.03**	-0.03**
	(-1.68)	(-1.68)	(-1.78)	(-1.81)	(-2.17)	(-2.13)
	[0.095]	[0.095]	[0.078]	[0.073]	[0.032]	[0.035]
OECD export growth t		-0.021***		-0.021***		-0.02***
		(-3.64)		(-3.71)		(-3.61)
		[0.00]		[0.00]		[0.00]
Country fixed effects	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y
Observations	2662	2662	2662	2662	2662	2662
Countries	118	118	118	118	118	118
R squared	0.114	0.12	0.115	0.12	0.115	0.12

Note: All data in columns (1), (3), and (5) is from Bazzi and Blattman (2014). All larger countries in Africa, the Middle East, Latin America, and Asia are included. The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 6. 3-year commodity price shocks and civil war outbreak beyond Sub-Saharan Africa: Bazzi-Blattman dataset, 1957-2007 period, 10% price maker cutoff

	relative commodity export weights (exports of commodity i over total commodity exports):					
	average 1957-2007		1990		1980	
	(1)	(2)	(3)	(4)	(5)	(6)
3-year commodity price shock t	-0.014	-0.014	-0.009	-0.009	-0.013	-0.013
	(-1.28)	(-1.34)	(-0.95)	(-1.01)	(-1.47)	(-1.52)
	[0.20]	[0.18]	[0.344]	[0.312]	[0.143]	[0.131]
OECD export growth t		-0.005**		-0.005**		-0.005**
		(-2.4)		(-2.4)		(-2.41)
		[0.018]		[0.018]		[0.017]
Country fixed effects	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y
Observations	4781	4781	4781	4781	4781	4781
Countries	118	118	118	118	118	118
R squared	0.086	0.087	0.086	0.086	0.086	0.087

Note: All data in columns (1), (3), and (5) is from Bazzi and Blattman (2014). All larger countries in Africa, the Middle East, Latin America, and Asia are included. The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1 .1-3.1.3. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 7: Summary of the effect of 3-year commodity price shocks on civil war outbreak beyond Sub-Saharan Africa for the 1957-2007 period using the Bazzi-Blattman dataset

PANEL A. Point estimates of the effect of 3-year commodity price shocks on civil war risk

Commodity weights (time-invariant)	average 1957-2007			1990			1980		
Price maker cutoff (%)	no	10	3	no	10	3	no	10	3
3-year commodity price shock t (%)	-1	-1	-2	-1	-1	-1	-1	-1	-2

PANEL B. P-values of the effect of 3-year commodity price shocks on civil war risk

Commodity weights (time-invariant)	average 1957-2007			1990			1980		
Price maker cutoff (%)	no	10	3	no	10	3	no	10	3
3-year commodity price shock t (%)	12	20	8	24	34	25	9	14	5

Note: The table reports point estimates (PANEL A) and p-values (PANEL B) when estimating equation (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. Shaded cells refer to effects that are significant at the 10% level at least. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in detail in Section 3.1.3. No price maker cutoff refers to results where all commodity export data is used. All data is from Bazzi and Blattman (2014) and includes all larger countries in Africa, the Middle East, Latin America, and Asia.

APPENDIX TABLE 8. 3-year commodity price shocks and civil war outbreak beyond Sub-Saharan Africa: Bazzi-Blattman dataset with updated civil war data, 1957-2009 period, 10% and 3% price maker cutoff

Price maker cutoff	10%		3%	
	(1)	(2) -	(3)	(4)
3-year commodity price shock t	-0.01	0.011	-0.020**	-0.020**
	(-1.28)	(-1.30)	(-2.38)	(-2.39)
	[0.202]	[0.195]	[0.019]	[0.018]
OECD export growth t		-0.002*		-0.002*
		(-1.87)		(-1.89)
		[0.063]		[0.061]
Test equality of coefficients on three shocks (p-value)	0.89	0.88	0.94	0.93
Test sum of the coefficients on three shocks equal zero (p-value)	0.21	0.2	0.019	0.019
Country fixed effects	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y
Observations	5019	5019	5019	5019
Countries	118	118	118	118
R squared	0.096	0.096	0.096	0.097

Note: The analysis includes all larger countries in Africa, the Middle East, Latin America, and Asia. The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 9. 3-year commodity price shocks and civil war outbreak: estimates for countries with commodity exports relative to GDP below and above the median, Bazzi-Blattman dataset with updated civil war data

Sample	price shock measure	commodity exports relative to GDP	
		below median	above median
Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.12** (-2.44) [0.024]	0.001 (0.03) [0.97]
Sub-Saharan Africa, 1957-2009 period	3-year commodity price shock t	-0.063*** (-2.28) [0.033]	-0.007 (-1.37) [0.18]
Beyond Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.028 (-0.90) [0.37]	-0.012 (-1.13) [0.26]
Beyond Sub-Saharan Africa, 1957-2009 period	3-year commodity price shock t	-0.001 (-0.05) [0.96]	-0.012* (-1.73) [0.089]

Note: The table splits countries in the sample listed in the left-most column at the median value of commodity exports relative to GDP and estimates the effect of 3-year commodity price shocks on civil war risk using equation (10) in the main text separately for the two subsamples. The 'beyond Sub-Saharan Africa' sample includes all larger countries in Africa, the Middle East, Latin America, and Asia. The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 10. 3-year commodity price shocks and civil war outbreak: sample splits by income/light per capita, income inequality, and ethnic fragmentation; Bazzi-Blattman dataset with updated civil war data

PANEL A. Light per capita in 2000

Sample	price shock measure	below median	above median
Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.121** (-2.31) [0.031]	-0.005 (-0.60) [0.56]
Beyond Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.048** (-1.99) [0.051]	0.004 (0.38) [0.71]

PANEL B. Real GDP per capita in 1980

		below median	above median
Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.07** (-2.04) [0.055]	-0.002 (-0.37) [0.71]
Beyond Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.024 (-1.27) [0.21]	-0.001 (-0.04) [0.14]

PABEL C. Inequality measured by Gini coefficient

		below median	above median
Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.074** (-2.13) [0.052]	0.01 (0.96) [0.36]
Beyond Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.051** (-2.04) [0.048]	0.006 (0.31) [0.76]

PANEL D. Inequality measured by top quintile income share

		below median	above median
Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.074* (-2.03) [0.063]	0.013 (1.08) [0.29]
Beyond Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.045* (-1.86) [0.07]	0.007 (0.31) [0.76]

PANEL E. Ethnic fragmentation measured by Alesina et al. (2003) index

		below median	above median
Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.097* (-1.88) [0.075]	-0.037 (-1.46) [0.16]
Beyond Sub-Saharan Africa, 1980-2009 period	3-year commodity price shock t	-0.044* (-1.69) [0.097]	-0.015 (-0.87) [0.38]

Note: The table splits countries in the sample listed in the left-most column at the median value of the variable listed in the panel headings and estimates the effect of 3-year commodity price shocks on civil war risk using equation (10) in the main text separately for the two subsamples. The 'beyond Sub-Saharan Africa' sample includes all larger countries in Africa, the Middle East, Latin America, and Asia. The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10%level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 11. Annual commodity price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman data only, 1980-2007 period, 3% price maker cutoff

	BB time varying	relative commodity export weights (exports of commodity i over total commodity exports):								
		average 1980-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Commodity price shock t	-0.067	-0.097*	-0.103*	-0.105*	-0.099**	-0.105**	-0.108**	-0.061	-0.064	-0.064
	(-1.72)	(-1.78)	(-1.87)	(-1.93)	(-2.11)	(-2.20)	(-2.29)	(-1.42)	(-1.49)	(-1.55)
	[0.093]	[0.082]	[0.068]	[0.06]	[0.041]	[0.033]	[0.027]	[0.16]	[0.14]	[0.13]
Commodity price shock t-1	-0.016	-0.026	-0.027	-0.024	-0.032	-0.033	-0.031	-0.027	-0.027	-0.026
	(-0.56)	(-0.64)	(-0.66)	(-0.59)	(-0.85)	(-0.88)	(-0.82)	(-0.83)	(-0.85)	(-0.80)
	[0.575]	[0.527]	[0.51]	[0.56]	[0.40]	[0.38]	[0.415]	[0.41]	[0.40]	[0.43]
Commodity price shock t-2	-0.042	-0.088*	-0.090*	-0.086*	-0.078*	-0.08*	-0.077*	-0.068	-0.067	-0.063
	(-1.23)	(1.76)	(-1.78)	(-1.71)	(1.89)	(-1.93)	(-1.83)	(-1.64)	(-1.63)	(-1.52)
	[0.22]	[0.086]	[0.081]	[0.094]	[0.066]	[0.06]	[0.074]	[0.11]	[0.11]	[0.14]
OECD export growth t			-0.024***	-0.024***		-0.025***	-0.025***		-0.024***	-0.024***
			(-7.62)	(-7.55)		(-7.77)	(-7.70)		(-7.74)	(-7.66)
			[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t				-0.278*			-0.278*			-0.276*
				(-1.99)			(-2.01)			(-1.97)
				[0.053]			[0.051]			[0.055]
Rainfall (GPCP) squared t				0.117*			0.118*			0.116*
				(1.89)			(1.93)			(1.88)
				[0.066]			[0.061]			[0.067]
Test equality of coefficients on three shocks (p-value)	0.40	0.53	0.43	0.47	0.54	0.50	0.44	0.76	0.76	0.78
Test sum of the coefficients on three shocks equal zero (p-value)	0.11	0.052	0.051	0.044	0.018	0.014	0.014	0.049	0.0445	0.047
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007
Countries	45	45	45	45	45	45	45	45	45	45
R squared	0.08	0.084	0.097	0.105	0.086	0.099	0.108	0.081	0.093	0.101

Note: The civil war data and the commodity price and export data is from Bazzi and Blattman (2014). The estimating equation is (9) in the main text. The left-hand-side variable is an indicator variable civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Column (1) calculates shocks using time-varying export weights as in Bazzi and Blattman (BB), and columns (2)-(10) calculate shocks using time-invariant export weights. The 3% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 3% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 12. Annual commodity price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman data only, 1982-2007 period, 10% price maker cutoff

	BB time varying	average 1980-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Commodity price shock t	-0.066	-0.097*	-0.101*	-0.101*	-0.102**	-0.107**	-0.108**	-0.084*	-0.087*	-0.086*
	(-1.49)	(-1.76)	(-1.82)	(-1.83)	(-2.07)	(-2.13)	(-2.18)	(-1.84)	(-1.89)	(-1.92)
	[0.14]	[0.086]	[0.075]	[0.074]	[0.044]	[0.038]	[0.35]	[0.072]	[0.065]	[0.062]
Commodity price shock t-1	-0.022	-0.04	-0.04	-0.04	-0.039	-0.039	-0.039	-0.032	-0.032	-0.034
	(-0.64)	(-0.91)	(-0.91)	(-0.91)	(-0.97)	(-0.98)	(-0.98)	(-0.91)	(-0.89)	(-0.95)
	[0.53]	[0.366]	[0.368]	[0.366]	[0.335]	[0.333]	[0.333]	[0.37]	[0.378]	[0.348]
Commodity price shock t-2	-0.048	-0.091*	-0.093*	-0.09*	-0.081*	-0.084*	-0.08*	-0.067	-0.067	-0.064
	(-1.10)	(1.80)	(-1.84)	(-1.77)	(1.84)	(-1.9)	(-1.79)	(-1.58)	(-1.57)	(-1.49)
	[0.279]	[0.078]	[0.073]	[0.083]	[0.072]	[0.064]	[0.081]	[0.122]	[0.123]	[0.144]
OECD export growth t			-0.025***	-0.024***		-0.025***	-0.025***		-0.024***	-0.024***
			(-7.21)	(-6.82)		(-7.3)	(-6.89)		(-7.04)	(-6.66)
			[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t				-0.266*			-0.262*			-0.271*
				(-1.77)			(-1.74)			(-1.81)
				[0.084]			[0.089]			[0.077]
Rainfall (GPCP) squared t				0.116*			0.115*			0.117*
				(1.71)			(1.71)			(1.74)
				[0.094]			[0.094]			[0.088]
Test equality of coefficients on three shocks (p-value)	0.65	0.63	0.60	0.62	0.57	0.5494	0.527	0.655	0.63	0.637
Test sum of the coefficients on three shocks equal zero (p-value)	0.13	0.052	0.046	0.045	0.021	0.018	0.018	0.039	0.037	0.036
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	932	932	932	932	932	932	932	932	932	932
Countries	45	45	45	45	45	45	45	45	45	45
R squared	0.089	0.095	0.107	0.115	0.097	0.11	0.117	0.093	0.106	0.113

relative commodity export weights (exports of commodity i over total commodity exports):

Note: The civil war data and the commodity price and export data is from Bazzi and Blattman (2014). The estimating equation is (9) in the main text. The left-hand-side variable is an indicator variable civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Column (1) calculates shocks using time-varying export weights as in Bazzi and Blattman (BB), and columns (2)-(10) calculate shocks using time-invariant export weights. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 13. Annual commodity price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman data only, 1982-2007 period, 3% price maker cutoff

	BB time varying	average 1980-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Commodity price shock t	-0.072*	-0.099*	-0.105*	-0.107*	-0.103**	-0.109**	-0.111**	-0.065	-0.068	-0.068
	(-1.75)	(-1.74)	(-1.83)	(-1.88)	(-2.08)	(-2.16)	(-2.24)	(-1.47)	(-1.53)	(-1.57)
	[0.086]	[0.089]	[0.074]	[0.067]	[0.044]	[0.036]	[0.030]	[0.150]	[0.133]	[0.125]
Commodity price shock t-1	-0.018	-0.028	-0.028	-0.026	-0.031	-0.032	-0.030	-0.026	-0.026	-0.026
	(-0.52)	(-0.59)	(-0.60)	(-0.56)	(-0.75)	(-0.76)	(-0.72)	(-0.73)	(-0.73)	(-0.74)
	[0.603]	[0.555]	[0.55]	[0.578]	[0.459]	[0.45]	[0.473]	[0.467]	[0.468]	[0.465]
Commodity price shock t-2	-0.046	-0.089	-0.090*	-0.087	-0.075*	-0.077*	-0.074*	-0.061	-0.061	-0.057
	(-1.12)	(1.67)	(-1.71)	(-1.63)	(-1.72)	(-1.76)	(-1.67)	(-1.43)	(-1.43)	(-1.32)
	[0.268]	[0.102]	[0.095]	[0.11]	[0.093]	[0.085]	[0.103]	[0.161]	[0.160]	[0.195]
OECD export growth t			-0.025***	-0.025***		-0.025***	-0.025***		-0.024***	-0.024***
			(-7.34)	(-6.95)		(-7.45)	(-7.06)		(-7.37)	(-6.96)
			[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t				-0.273*			-0.275*			-0.274*
				(-1.83)			(-1.86)			(-1.83)
				[0.073]			[0.069]			[0.074]
Rainfall (GPCP) squared t				0.118*			0.119*			0.117*
				(1.76)			(1.81)			(1.75)
				[0.085]			[0.078]			[0.087]
Test equality of coefficients on three shocks (p-value)	0.41	0.57	0.55	0.54	0.51	0.47	0.41	0.81	0.79	0.79
Test sum of the coefficients on three shocks equal zero (p-value)	0.104	0.063	0.054	0.052	0.025	0.02	0.02	0.062	0.056	0.06
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	932	932	932	932	932	932	932	932	932	932
Countries	45	45	45	45	45	45	45	45	45	45
R squared	0.090	0.094	0.107	0.114	0.096	0.11	0.117	0.090	0.103	0.110

relative commodity export weights (exports of commodity i over total commodity exports): — column group headers above: BB time varying (1); average 1980-2007 (2)-(4); 1990 (5)-(7); 1980 (8)-(10).

Note: The civil war data and the commodity price and export data is from Bazzi and Blattman (2014). The estimating equation is (9) in the main text. The left-hand-side variable is an indicator variable civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Column (1) calculates shocks using time-varying export weights as in Bazzi and Blattman (BB), and columns (2)-(10) calculate shocks using time-invariant export weights. The 3% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 3% and is explained in detail in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 14. 3-year commodity price price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman data only, 1980-2007 period, 3% price maker cutoff

| | relative commodity export weights (exports of commodity i over total commodity exports): | | | | | | | | |
| | average 1980-2007 | | | 1990 | | | 1980 | | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3-year commodity price shock t	-0.069*	-0.072**	-0.07**	-0.068**	-0.072**	-0.071**	-0.052**	-0.053**	-0.051**
	(-1.98)	(-2.06)	(-2.05)	(-2.43)	(-2.54)	(-2.54)	(-2.02)	(-2.07)	(-2.04)
	[0.054]	[0.045]	[0.046]	[0.019]	[0.015]	[0.015]	[0.049]	[0.045]	[0.047]
OECD export growth t		-0.024***	-0.024***		-0.024***	-0.024***		-0.024***	-0.024***
		(-7.79)	(-7.73)		(-8.05)	(-7.98)		(-7.67)	(-7.61)
		[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t			-0.274*			-0.274*			-0.275*
			(-1.97)			(-1.98)			(-1.98)
			[0.055]			[0.053]			[0.055]
Rainfall (GPCP) squared t			0.116*			0.116*			0.116*
			(1.86)			(1.88)			(1.87)
			[0.07]			[0.067]			[0.068]
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1007	1007	1007	1007	1007	1007	1007	1007	1007
Countries	45	45	45	45	45	45	45	45	45
R squared	0.082	0.094	0.102	0.084	0.097	0.104	0.08	0.092	0.10

Note: The civil war data and the commodity price and export data is from Bazzi and Blattman (2014). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 3% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country in the world exports of the commodity exceeded 3% and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 15. 3-year commodity price price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman data only, 1982-2007 period, 10% price maker cutoff

	relative commodity export weights (exports of commodity i over total commodity exports):								
	average 1980-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3-year commodity price shock t	-0.075*	-0.077**	-0.076**	-0.073**	-0.076**	-0.075**	-0.061**	-0.061**	-0.061**
	(-1.98)	(-2.04)	(-2.04)	(-2.36)	(-2.44)	(-2.44)	(-2.11)	(-2.13)	(-2.15)
	[0.054]	[0.048]	[0.047]	[0.023]	[0.019]	[0.019]	[0.041]	[0.038]	[0.037]
OECD export growth t		-0.025***	-0.024***		-0.025***	-0.024***		-0.024***	-0.024***
		(-7.34)	(-6.97)		(-7.58)	(-7.17)		(-7.11)	(-6.76)
		[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t			-0.271*			-0.267*			-0.277*
			(-1.83)			(-1.8)			(-1.87)
			[0.074]			[0.079]			[0.068]
Rainfall (GPCP) squared t			0.117*			0.116*			0.119*
			(1.74)			(1.73)			(1.78)
			[0.088]			[0.09]			[0.082]
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	932	932	932	932	932	932	932	932	932
Countries	45	45	45	45	45	45	45	45	45
R squared	0.093	0.105	0.113	0.094	0.107	0.115	0.092	0.104	0.112

Note: The civil war data and the commodity price and export data is from Bazzi and Blattman (2014). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 10% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country in the world exports of the commodity exceeded 10% and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 16. 3-year commodity price price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi-Blattman data only, 1982-2007 period, 3% price maker cutoff

	relative commodity export weights (exports of commodity i over total commodity exports):								
	average 1980-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3-year commodity price shock t	-0.071*	-0.074*	-0.072*	-0.069**	-0.072**	-0.071**	-0.051*	-0.052*	-0.050**
	(-1.88)	(-1.96)	(-1.95)	(-2.28)	(-2.38)	(-2.37)	(-1.91)	(-1.96)	(-1.93)
	[0.067]	[0.057]	[0.058]	[0.027]	[0.022]	[0.022]	[0.062]	[0.056]	[0.06]
OECD export growth t		-0.025***	-0.024***		-0.025***	-0.024***		-0.024***	-0.024***
		(-7.52)	(-7.13)		(-7.74)	(-7.32)		(-7.37)	(-6.99)
		[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCP) t			-0.273*			-0.274*			-0.277*
			(-1.85)			(-1.86)			(-1.86)
			[0.072]			[0.07]			[0.07]
Rainfall (GPCP) squared t			0.117*			0.117*			0.118*
			(1.75)			(1.76)			(1.76)
			[0.087]			[0.085]			[0.085]
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific linear time trends	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	932	932	932	932	932	932	932	932	932
Countries	45	45	45	45	45	45	45	45	45
R squared	0.092	0.104	0.112	0.093	0.106	0.114	0.089	0.101	0.109

Note: The civil war data and the commodity price and export data is from Bazzi and Blattman (2014). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 3% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country in the world exports of the commodity exceeded 10% and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 3% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 17. 3-year commodity price shocks and civil war outbreak in Sub-Saharan Africa: Bazzi and Blattman data only, 1957-2007 period, 3% price maker cutoff

	relative commodity export weights (exports of commodity i over total commodity exports):								
	average 1957-2007			1990			1980		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3-year commodity price shock t	-0.038*	-0.04**	-0.037**	-0.025	-0.026	-0.025	-0.023	-0.024	-0.025
	(-1.95)	(-2.03)	(-2.03)	(-1.56)	(-1.63)	(-1.62)	(-1.53)	(-1.60)	(-1.66)
	[0.058]	[0.048]	[0.048]	[0.13]	[0.11]	[0.11]	[0.13]	[0.12]	[0.105]
OECD export growth t		-0.007***	-0.007***		-0.007***	-0.007***		-0.007***	-0.007***
		(-4.03)	(-4.05)		(-4.05)	(-4.06)		(-3.96)	(-3.99)
		[0.00]	[0.00]		[0.00]	[0.00]		[0.00]	[0.00]
Rainfall (GPCC) t			-0.133*			-0.133*			-0.134*
			(-1.83)			(-1.81)			(-1.84)
			[0.071]			[0.076]			[0.073]
Rainfall (GPCC) squared t			0.048*			0.047*			0.048*
			(1.83)			(1.83)			(1.88)
			[0.074]			[0.074]			[0.067]
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country specific time trend	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	1805	1805	1805	1805	1805	1805	1805	1805	1805
Countries	45	45	45	45	45	45	45	45	45
R squared	0.104	0.106	0.109	0.103	0.105	0.108	0.103	0.105	0.108

Note: The civil war data and the commodity price and export data is from Bazzi and Blattman (2014). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. The 3% price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country in the world exports of the commodity exceeded 3% and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 3% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 18. Annual commodity price shocks and civil war outbreak in Sub-Saharan Africa 1980-2009: minerals, oil, and gas versus agricultural commodity prices

Price maker cutoff	10%	3%
	(1)	(2)
Minerals, oil, gas price shock t	-0.078**	-0.09**
	(-2.04)	(-2.22)
	[0.047]	[0.032]
Minerals, oil, gas price shock t-1	-0.039	-0.036
	(-1.1)	(-0.9)
	[0.28]	[0.37]
Minerals, oil, gas price shock t-2	-0.011	-0.009
	(-0.42)	(-0.31)
	[0.68]	[0.76]
Agricultural commodity price shock t	-0.053	-0.049
	(-0.96)	(-0.88)
	[0.34]	[0.38]
Agricultural commodity price shock t-1	-0.087	-0.087
	(-1.36)	(-1.33)
	[0.18]	[0.19]
Agricultural commodity price shock t-2	-0.07	-0.069
	(-1.38)	(-1.29)
	[0.17]	[0.20]
Country fixed effects	Y	Y
Year fixed effects	Y	Y
Country specific linear time trends	Y	Y
Observations	1099	1099
Countries	45	45
R squared	0.1	0.1

Note: The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The estimating equation is (9) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. The minerals, oil, and gas shock is defined as in (7) but with the summation only over commodities classified as minerals, oil, and gas. The agricultural commodity shock is defined as in (7) but with the summation only over agricultural commodities. (Hence, the two types of shocks sum to the fixed-weight commodity shock involving all commodities.) The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level

APPENDIX TABLE 19. 3-year commodity price shocks and civil war outbreak in Sub-Saharan Africa 1980-2009: minerals, oil, and gas versus agricultural commodity prices

Price maker cutoff	10%	3%
	(1)	(2)
3-year minerals, oil, gas price shock t	-0.046*	-0.049*
	(-1.78)	(-1.73)
	[0.082]	[0.09]
3-year agricultural commodity price shock t	-0.068**	-0.066*
	(-2.05)	(-1.96)
	[0.046]	[0.056]
Country fixed effects	Y	Y
Year fixed effects	Y	Y
Country specific linear time trends	Y	Y
Observations	1099	1099
Countries	45	45
R squared	0.1	0.1

Note: The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.3. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. The minerals, oil, and gas shock is defined as in (7) but with the summation only over commodities classified as minerals, oil, and gas. The agricultural commodity shock is defined as in (7) but with the summation only over agricultural commodities. (Hence, the two types of shocks sum to the fixed-weight commodity shock involving all commodities.) The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in Section 3.1.3. Standard errors in parentheses and p-values of the hypothesis that the effect is zero in square brackets. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level

APPENDIX TABLE 20. 3-year commodity price shocks and civil war outbreak in Sub-Saharan Africa 1957-2009: minerals, oil, and gas versus agricultural commodity prices

Price maker cutoff	10%	3%
	(1)	(2)
3-year minerals, oil, gas price shock t	-0.023	-0.033**
	(-1.52)	(-2.02)
	[0.14]	[0.049]
3-year agricultural commodity price shock t	-0.037**	-0.039**
	(-2.31)	(-2.27)
	[0.026]	[0.028]
Country fixed effects	Y	Y
Year fixed effects	Y	Y
Country specific linear time trends	Y	Y
Observations	1897	1897
Countries	45	45
R squared	0.1	0.1

Note: The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.2. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. The minerals, oil, and gas shock is defined as in (7) but with the summation only over commodities classified as minerals, oil, and gas. The agricultural commodity shock is defined as in (7) but with the summation only over agricultural commodities. (Hence, the two types of shocks sum to the fixed-weight commodity shock involving all commodities.) The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in Section 3.1.3. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 21. Annual commodity price shocks and civil war outbreak beyond Sub-Saharan Africa 1980-2009: minerals, oil, and gas versus agricultural commodity prices

Price maker cutoff	10%	3%
	(1)	(2)
Minerals, oil, gas price shock t	-0.033*	-0.045**
	(-1.87)	(-2.21)
	[0.064]	[0.029]
Minerals, oil, gas price shock t-1	-0.013	-0.014
	(-0.66)	(-0.52)
	[0.51]	[0.601]
Minerals, oil, gas price shock t-2	0.014	0.005
	(-0.83)	(0.23)
	[0.41]	[0.818]
Agricultural commodity price shock t	-0.034	-0.038
	(-1.01)	(-1.12)
	[0.31]	[0.27]
Agricultural commodity price shock t-1	-0.036	-0.036
	(-0.9)	(-0.87)
	[0.37]	[0.38]
Agricultural commodity price shock t-2	-0.065**	-0.066**
	(-2.05)	(-1.99)
	[0.042]	[0.049]
Country fixed effects	Y	Y
Year fixed effects	Y	Y
Country specific linear time trends	Y	Y
Observations	2901	2901
Countries	118	118
R squared	0.119	0.119

Note: The analysis includes all larger countries in Africa, the Middle East, Latin America, and Asia. The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The estimating equation is (9) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.2. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. The minerals, oil, and gas shock is defined as in (7) but with the summation only over commodities classified as minerals, oil, and gas. The agricultural commodity shock is defined as in (7) but with the summation only over agricultural commodities. (Hence, the two types of shocks sum to the fixed-weight commodity shock involving all commodities.) The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in Section 3.1.3. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 22. 3-year commodity price shocks and civil war outbreak beyond Sub-Saharan Africa 1980-2009: minerals, oil, and gas versus agricultural commodity prices

Price maker cutoff	10%	3%
	(1)	(2)
3-year minerals, oil, gas price shock t	-0.013	-0.02
	(-0.99)	(-1.25)
	[0.32]	[0.21]
3-year agricultural commodity price shock t	-0.044**	-0.046**
	(-2.02)	(-2.03)
	[0.046]	[0.045]
Country fixed effects	Y	Y
Year fixed effects	Y	Y
Country specific linear time trends	Y	Y
Observations	2901	2901
Countries	118	118
R squared	0.119	0.119

Note: The analysis includes all larger countries in Africa, the Middle East, Latin America, and Asia. The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.2. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. The minerals, oil, and gas shock is defined as in (7) but with the summation only over commodities classified as minerals, oil, and gas. The agricultural commodity shock is defined as in (7) but with the summation only over agricultural commodities. (Hence, the two types of shocks sum to the fixed-weight commodity shock involving all commodities.) The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in Section 3.1.3. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.

APPENDIX TABLE 23. 3-year commodity price shocks and civil war outbreak beyond Sub-Saharan Africa 1957-2009: minerals, oil, and gas versus agricultural commodity prices

Price maker cutoff	10%	3%
	(1)	(2)
3-year minerals, oil, gas price shock t	-0.002	-0.018**
	(-0.23)	(-2.05)
	[0.82]	[0.043]
3-year agricultural commodity price shock t	-0.024*	-0.028**
	(-1.88)	(-2.07)
	[0.062]	[0.041]
Country fixed effects	Y	Y
Year fixed effects	Y	Y
Country specific linear time trends	Y	Y
Observations	5019	5019
Countries	118	118
R squared	0.1	0.1

Note: The analysis includes all larger countries in Africa, the Middle East, Latin America, and Asia. The commodity price and export data is from Bazzi and Blattman (2014). The civil war data is from the same source used by Bazzi and Blattman but updated using the latest version (UCPD 2016 version 4). The estimating equation is (10) in the main text. The left-hand-side variable is an indicator variable for civil war outbreak. The calculation of the shocks is explained in Sections 3.1.1-3.1.2. Time-invariant country-commodity weights are set equal to country-commodity export shares averaged over the sample period. The minerals, oil, and gas shock is defined as in (7) but with the summation only over commodities classified as minerals, oil, and gas. The agricultural commodity shock is defined as in (7) but with the summation only over agricultural commodities. (Hence, the two types of shocks sum to the fixed-weight commodity shock involving all commodities.) The 10% (3%) price maker cutoff basically implies that commodity exports of country-years are not used to obtain export weights if the country's share of world exports exceeds 10% (3%) and is explained in Section 3.1.3. * denotes significance at the 10% level; ** significance at the 5% level; and *** significance at the 1% level.