Women's (Dis-)Empowerment Post-Civil War

The Impact of Conflict on Female Labour Force Participation in Côte d'Ivoire

Alina Greiner

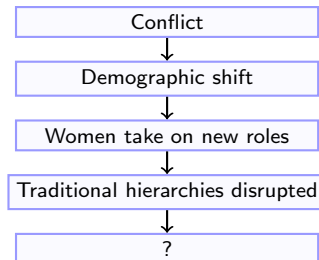University of Konstanz

Doctoral Workshop 18.09.2020

Introduction

▷ Research Question

    ► Does exposure to civil war lead to changes in women's labour force participation?

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▷ Theoretical & empirical puzzle

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│        Demographic shift        │
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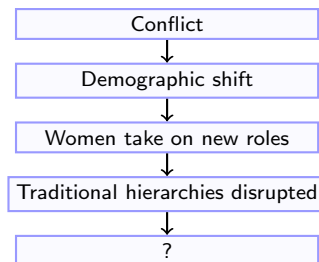
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▷ Open question

  ▶ Will these changes be sustainable and translate into lasting change to women's roles post-war?

Previous findings

What happens to female participation post-war?

1 Return to status quo (Wood, 2008)
  = no treatment effect

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1. Return to status quo (Wood, 2008)
   = no treatment effect

2. Higher rates of female participation (Hughes and Tripp, 2015)
   = positive treatment effect

3. Lower rates of female participation (Akbulut-Yuksel et al., 2016)
   = negative treatment effect

Theory

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▷ Shaped by perception of changes & response to conflict experiences

▷ Are women subject to war-induced empowerment or disempowerment?

▷ Direction of effect unclear

Expected Treatment Effect

H1 - Empowerment
Civil war increases women's likelihood to work outside the home.
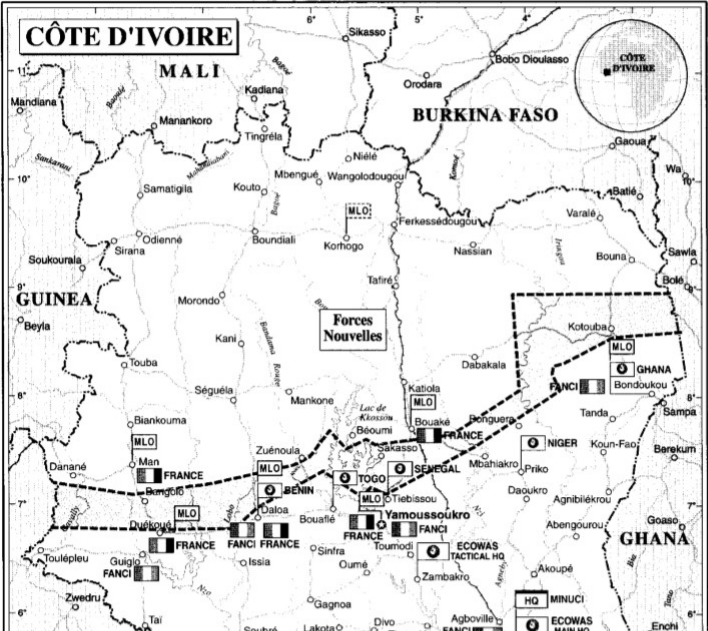
Expected Treatment Effect

H1 - Empowerment
Civil war increases women's likelihood to work outside the home.

H2 - Disempowerment
Civil war decreases women's likelihood to work outside the home.

Case Selection

Data Source and Measurement

▷ Geo-coded survey data (DHS) collected before and after the civil war in Côte d'Ivoire

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▷ Independent variable *Treated & Post*

Design

▷ Regression Discontinuity coupled with Difference-in-Difference

- ▶ Arbitrarily drawn border between Côte d'Ivoire and Burkina Faso

- ▶ Treatment assignment (as-if) random

- ▶ Compare women living in close proximity on either side of the border ante- and post-civil war

$$
\begin{aligned}
Y_{it} = \beta_0 + \beta_1 * X_i + \delta^{SRD} * Treated + \\
\beta_2 * X_i * Treated + q_{it}
\end{aligned}
\tag{1}
$$

$$
\begin{aligned}
Y_{it} = \beta_0 + \beta_1 * Treated_i + \beta_2 * Post_t + \\
\delta^{DD} * Treated_i * Post_t + Z_{it} + q_{it}
\end{aligned}
\tag{2}
$$

Results I

Plotting discontinuity
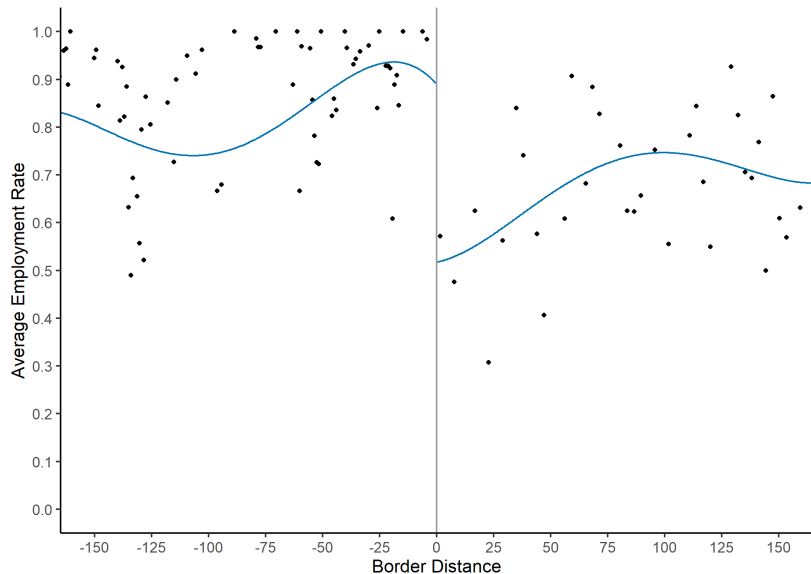
Results II

Levels of female labour force participation before and after the civil war

	Pre-Treatment		Post-Treatment		δ^{DD}
	Côte d'Ivoire (%)	Burkina Faso (%)	Côte d'Ivoire (%)	Burkina Faso (%)	(%p)
Work Outside Home	86.36	91.67	57.89	92.72	-29.53

Note: Distance to border $\leq$ 45 km.

Results III
Covariate Adjustment

| | Dependent Variable: Work Outside Home | | | |
	Model 1	Model 2	Model 3	Model 4
Post*Treated	-0.295^{***}	-0.255^{**}	-0.253^{**}	-0.250^{*}
	(0.000)	(0.019)	(0.018)	(0.029)
Observations	1057	1054	1048	1048
Individual controls	No	Yes	Yes	Yes
Household controls	No	No	Yes	Yes
Cluster controls	No	No	No	Yes

Note: Distance to border $\leq$ 45 km. Robust country-clustered SEs in parentheses. $^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

Potential Mechanisms
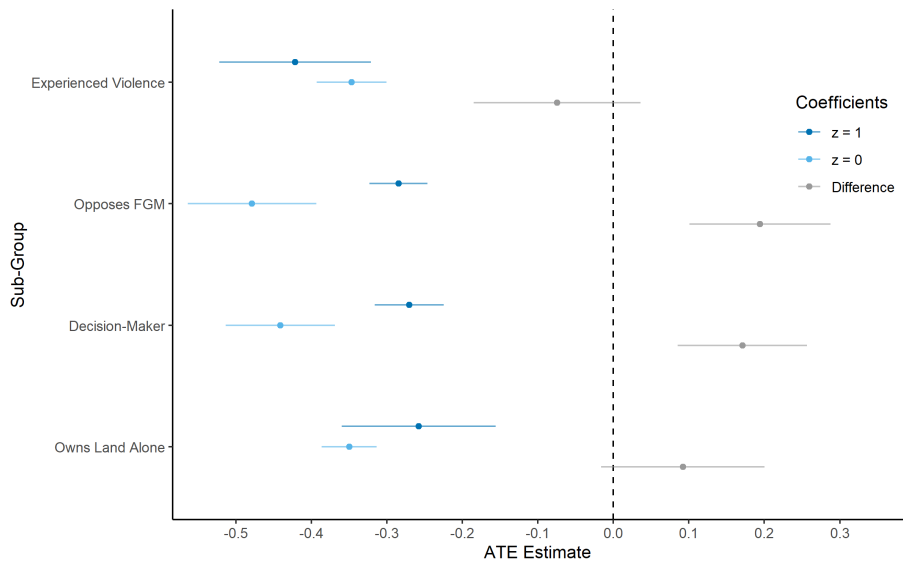
Conclusion

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▷ Preliminary insights into mechanisms: reduction in bargaining power & shift towards more traditional gender norms potential drivers

Conclusion

▷ Ivoirian women's likelihood to work outside the home is reduced by 25 p.p. post-civil war.

▷ Result is robust to different bandwidths and model specifications.

▷ Preliminary insights into mechanisms: reduction in bargaining power & shift towards more traditional gender norms potential drivers

▷ Limitations

    ▷ No panel data

    ▷ No information on processes during conflict

Thank you!

Feedback, ideas, suggestions?
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References

Akbulut-Yuksel, Mevlude, Melanie Khamis, and Mutlu Yuksel (2016). "For better or for worse: the long-term effects of postwar mobilization on family formation". In: *Applied Economics* 48.29, pp. 2771–2784.

Hughes, Melanie M. and Aili Mari Tripp (2015). "Civil War and Trajectories of Change in Women's Political Representation in Africa, 1985-2010". In: *Social Forces* 93.4, pp. 1513–1540.

Wood, Elisabeth Jean (2008). "The Social Processes of Civil War: The Wartime Transformation of Social Networks". In: *Annual Review of Political Science* 11.1, pp. 539–561.

Robustness I

Bandwidth	Estimate	Std.Error	z	p	95%CI
Optimal (45 km)	−0.450	0.061	−7.350	0.000	[-0.570;-0.330]
Half (22 km)	−0.488	0.075	−6.536	0.000	[-0.634;-0.341]
Twice (90 km)	−0.467	0.049	−9.469	0.000	[-0.564;-0.370]

Note: RD estimates with confidence intervals based on h_{MSE}, $0.5 * h_{MSE}$ and $2 * h_{MSE}$.

Robustness II

Figure: Bandwidth Sensitivity *Work Outside Home*
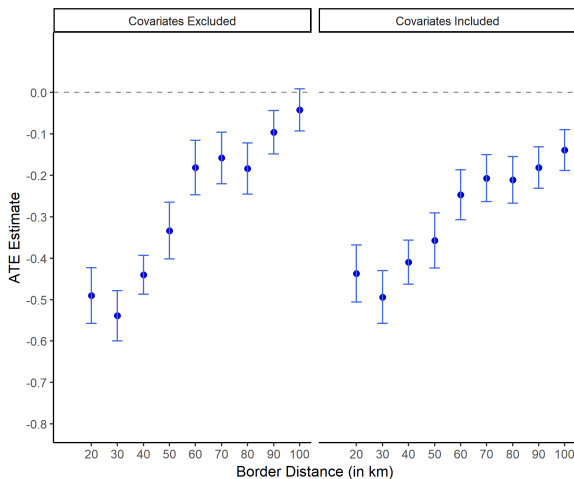
Summary Statistics Pre-Treatment

Statistic		Côte d'Ivoire			Burkina Faso	
	N	Mean	SD	N	Mean	SD
Age	44	30.05	9.26	84	30.11	9.81
Educated	44	0.18	0.39	84	0.04	0.19
Education Years	44	1.09	2.41	84	0.14	0.85
Literate	44	0.16	0.37	84	0.02	0.15
Married	44	0.70	0.46	84	0.83	0.37
Mother	44	0.80	0.41	84	0.81	0.40
Children	44	3.20	2.58	84	3.15	2.58
Age First Birth	36	18.61	2.85	71	19.00	3.19
Age First Marriage	38	17.84	2.68	72	17.38	3.77
Years Married	38	13.74	8.15	72	14.54	9.43
Only Wife	37	0.51	0.51	71	0.31	0.47
Circumcised	43	0.84	0.37	73	0.97	0.16
Never used FP	44	0.86	0.35	84	0.92	0.28
Christian	44	0.14	0.35	84	0.07	0.26
Muslim	44	0.18	0.39	84	0.17	0.37
Traditional	44	0.14	0.35	84	0.54	0.50
Works	44	0.86	0.35	84	0.92	0.28
Works in Agriculture	44	0.66	0.48	84	0.64	0.48
Self-Employed	39	0.51	0.51	77	0.47	0.50
Works for Family	39	0.46	0.51	77	0.53	0.50
Female HH Head	44	0.02	0.15	84	0.05	0.21
Number Children in HH	44	4.93	4.38	84	2.44	2.05
Household Wealth	44	2.48	1.13	84	1.87	1.18
Population (in 100)	44	37.64	22.82	84	32.10	30.81
Rainfall (in ml)	44	1,104	160.49	84	1,112	50.80
Malaria	44	0.55	0.00	84	0.60	0.02
Urban	44	0.32	0.47	84	0.00	0.00

Note: Border distance $\leq$ 45 km.

Summary Statistics Pre-Treatment

Statistic	Côte d'Ivoire			Burkina Faso		
	N	Mean	SD	N	Mean	SD
Age	30	30.00	8.60	58	30.12	10.55
Educated	30	0.00	0.00	58	0.00	0.00
Education Years	30	0.00	0.00	58	0.00	0.00
Literate	30	0.00	0.00	58	0.00	0.00
Married	30	0.77	0.43	58	0.79	0.41
Mother	30	0.87	0.35	58	0.78	0.42
Children	30	3.37	2.57	58	3.22	2.64
Age First Birth	26	18.85	2.62	47	19.11	3.45
Age First Marriage	26	17.92	2.35	47	16.72	2.52
Years Married	26	13.35	7.58	47	16.21	9.67
Only Wife	25	0.48	0.51	47	0.38	0.49
Circumcised	30	1.00	0.00	48	0.96	0.20
Never used FP	30	1.00	0.00	58	0.95	0.22
Christian	30	0.00	0.00	58	0.00	0.00
Muslim	30	0.00	0.00	58	0.07	0.26
Traditional	30	0.20	0.41	58	0.67	0.47
Works	30	1.00	0.00	58	0.88	0.33
Works Agriculture	30	0.97	0.18	58	0.52	0.50
Self-Employed	30	0.43	0.50	51	0.53	0.50
Works For Family	30	0.57	0.50	51	0.47	0.50
Female HH Head	30	0.00	0.00	58	0.03	0.18
Number Children in HH	30	6.80	4.12	58	2.12	1.98
HH Wealth	30	1.93	0.52	58	1.62	0.93
Population (in 100)	30	53.05	0.00	58	40.97	33.52
Rainfall (in ml)	30	995	0.00	58	1,100	57.56
Malaria	30	0.55	0.00	58	0.59	0.02
Urban	30	0.00	0.00	58	0.00	0.00

Note: Border distance $\leq$ 22 km.

Potential mechanisms: t-test post-war observations

Channel	Variable	Mean$_{CI}$	Mean$_{BF}$	Diff	t	p
Bargaining Power	Owns House	0.57	0.48	0.08	2.22	0.027
	Owns House Alone	0.15	0.20	−0.06	−1.96	0.051
	Owns Land	0.47	0.37	0.09	2.50	0.013
	Owns Land Alone	0.09	0.21	−0.11	−4.64	0.000
	Involved in HH Decisions (any)	0.63	0.85	−0.21	−5.33	0.000
Gender Norms	Circumcised	0.72	0.87	−0.15	−4.61	0.000
	Approves Circumcision	0.19	0.08	0.12	4.01	0.000
	Never Used Family Planning	0.73	0.75	−0.02	−0.57	0.566
	Only Wife	0.61	0.52	0.09	2.13	0.034
	Wife Beating Justified (any)	0.36	0.47	−0.11	−3.03	0.003
Backlash/ Oppression	Working Prohibited	0.09	0.06	0.03	1.05	0.294
	Domestic Violence (any)	0.16	0.30	−0.14	−3.52	0.001
	Other Violence	0.18	0.10	0.09	2.58	0.011
Job Scarcity/ Migration	Partner Employed	0.98	1.00	−0.02	−2.02	0.045
	Partner Educated	0.25	0.18	0.06	1.81	0.072
	Respondent Educated	0.29	0.17	0.12	3.67	0.000
	Respondent Age	28.05	29.81	−1.76	−2.52	0.012
Marriage Market	Married Post-War	0.24	0.14	0.11	3.05	0.003
	Age First Marriage	17.20	17.12	0.08	0.25	0.804
	Age First Marriage (Post-War)	19.41	17.35	2.06	2.34	0.023
	Husband's Age	38.05	42.54	−4.49	−4.86	0.000
	Husband's Age (Married Post)	30.38	29.24	1.14	0.77	0.442
Household Composition	Cohabitation	0.75	0.84	−0.09	−2.70	0.007
	Female Head	0.20	0.07	0.13	4.71	0.000
	Children in HH	1.55	1.69	−0.13	−1.30	0.194
	Members in HH	7.07	7.47	−0.40	−1.34	0.182

Note: Border distance $\leq$ 45 km.