

Gov 2001: Extension of Original Paper

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Introduction

We are extending “Redemption through Rebellion: Border Change, Lost Unity, and Nationalist Conflict.” (2022), by Lars-Erik Cederman, Seraina Rüegger, and Guy Schvitz. The data and code for this paper are in the Harvard Dataverse.

Results

```
# Set working directory to own project folder
#setwd("./redemption-through-rebellion-dataverse_files/")

## Load dataset
#an.df <- read.dta("epr_segment_level_analysis_ext.dta")
#an.df.rugged <- read.csv(here("redemption-through-rebellion-dataverse_files", "epr_segment_level_analysis_ext.csv"))
exten.df = read.csv(here("redemption-through-rebellion-dataverse_files",
                        "epr_segment_level_analysis_extensions_rugged_claims.csv"))

## Code "peaceyears" variable: years since last conflict, squared, cubed
exten.df$pys <- exten.df$peaceyears
exten.df$pys2 <- exten.df$peaceyears^2
exten.df$pys3 <- exten.df$peaceyears^3

## Subset dataset: only politically relevant groups (EPR definition), exclude
## dominant and monopoly groups and groups without settlement area in GeoEPR,
exten.df.sub.allyears <- exten.df %>%
  filter(isrelevant==1,
         status_monopoly==0,
         status_dominant==0,
         !is.na(seg_area_sqkm),
         !is.na(onset_do_flag))
```

Table 1

Table 1 with Mean Terrain Ruggedness and AG post-inclusion/post-downgrade

The table below replicates Table 1 in Cederman et al. (2022), providing the results of 3 logit models with robust standard errors clustered at the AG level.

```

# define variables for use in all models, including DV
vars_logit <- c("onset_do_flag", "ln_ag_area_sqkm", "ag_incidence_flag_lag",
               "status_excl", "downgraded2", "rugged_mean",
               "rbal", "warhist", "ln_capdist", "ln_rgdppc_lag",
               "ln_pop_lag", "colonial_past", "ln_state_age",
               "pys", "pys2", "pys3", "downgr5_aut", "downgr5_incl")
# identify AG "treatment" variables to be analyzed separately
treat.vars <- c("split", "tfrac", "tfrac_incr_post1946")

# for each "treatment" variable, run logit model
for(treat_var in treat.vars){
  full_lhs <- append(treat_var, vars_logit)
  onset_logit <- glm(onset_do_flag ~ .,
                    data=exten.df.sub.allyears[,full_lhs], family="binomial")
  assign(paste0("logit_",treat_var), onset_logit)
}

# include clustered standard errors for each generated model
logit_split_coefs <- coeftest(logit_split,
                             vcov. = vcovCL(logit_split,
                                              cluster = exten.df.sub.allyears$ag_id))
logit_tfrac_coefs <- coeftest(logit_tfrac,
                             vcov. = vcovCL(logit_tfrac,
                                              cluster = exten.df.sub.allyears$ag_id))
logit_tfrac_1946_coefs <- coeftest(logit_tfrac_incr_post1946,
                                   vcov. = vcovCL(logit_tfrac_incr_post1946,
                                                  cluster = exten.df.sub.allyears$ag_id))

# Display results of logit model
stargazer(logit_split_coefs, logit_tfrac_coefs, logit_tfrac_1946_coefs,
          type="text",
          dep.var.labels.include = T,
          header = F,
          omit = c("pys", "pys2","pys3"),
          column.sep.width = "3pt", # to reduce column width
          single.row = TRUE, # to put coefficients and standard errors on same line
          font.size = "small", # to make font size smaller
          title = "Replication of Table 1",
          dep.var.caption = "Civil Conflict Onset",
          covariate.labels = c("Divided group", "Fractionalization",
                              "Frac. incr. since 1946", "Territory sq.km, log",
                              "Ongoing conflict, lag", "Exclusion", "Downgraded",
                              "Terrain Ruggedness (Mean)", "Relative size", "War history",
                              "Distance to capital, log", "GDP, lag, log",
                              "Population, log", "Colonial history",
                              "State age, log",
                              "Downgrade of autonomy (5 years)", "Downgrade of inclusion (5 years)"))

```

Replication of Table 1

Civil Conflict Onset

(1)

(2)

(3)

Divided group 0.623*** (0.189) Fractionalization 1.667*** (0.379) Frac. incr. since 1946 3.395*** (0.848)
Territory sq.km, log -0.072 (0.055) -0.088* (0.049) 0.010 (0.047) Ongoing conflict, lag 0.185 (0.468) 0.014
(0.412) 0.247 (0.480) Exclusion 0.760*** (0.277) 0.729*** (0.254) 0.783*** (0.281) Downgraded 0.889**
(0.393) 0.949** (0.388) 0.951** (0.394) Terrain Ruggedness (Mean) -0.0001** (0.00004) -0.0001* (0.00003)
-0.0001*** (0.00004) Relative size 0.946** (0.444) 0.826* (0.428) 0.807* (0.414) War history 0.694***
(0.137) 0.715*** (0.130) 0.680*** (0.122) Distance to capital, log 0.090 (0.096) 0.106 (0.099) 0.076 (0.093)
GDP, lag, log 0.253* (0.132) 0.277** (0.131) 0.205 (0.132) Population, log -0.565*** (0.210) -0.579***
(0.198) -0.556*** (0.202) Colonial history 0.760* (0.388) 0.675* (0.370) 0.849*** (0.326) State age, log
0.176 (0.151) 0.145 (0.146) 0.252* (0.129) Downgrade of autonomy (5 years) 1.046*** (0.372) 1.096***
(0.368) 1.047*** (0.377) Downgrade of inclusion (5 years) 0.451 (0.392) 0.422 (0.394) 0.474 (0.390)
Constant -4.047*** (1.311) -3.814*** (1.229) -4.765*** (1.205)

Note: $p < 0.1$; $p < 0.05$; $p < 0.01$

```
r stargazer(logit_split_coefs, logit_tfrac_coefs, logit_tfrac_1946_coefs, type="text",
header = T, omit = c("pys", "pys2", "pys3"), single.row = T, # to put coefficients and
standard errors on same line font.size = "small", # to make font size smaller title =
"Replication of Table 1", dep.var.caption = "Civil Conflict Onset", covariate.labels =
c("Divided group", "Fractionalization", "Frac. incr. since 1946", "Territory sq.km, log",
"Ongoing conflict, lag", "Exclusion", "Downgraded", "Terrain Ruggedness (Mean)", "Relative
size", "War history", "Distance to capital, log", "GDP, lag, log", "Population,
log", "Colonial history", "State age, log", "Downgrade of autonomy (5 years)", "Downgrade
of inclusion (5 years)"))
Replication of Table 1
```

Civil Conflict Onset

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References

- Cederman, Lars-Erik, Seraina Rüegger, and Guy Schvitz. 2022. “Redemption through Rebellion: Border Change, Lost Unity, and Nationalist Conflict.” *American Journal of Political Science* 66 (1): 24–42. <https://doi.org/10.1111/ajps.12634>.
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- Fearon, James D., and David D. Laitin. 2003. “Ethnicity, Insurgency, and Civil War.” *American Political Science Review* 97 (1): 75–90. <https://doi.org/10.1017/S0003055403000534>.
- Shaver, A., Carter, D. B., & Shawa, T. W. (2019). Terrain ruggedness and land cover: Improved data for most research designs. *Conflict Management and Peace Science*, 36(2), 191–218. <https://doi-org.ezp-prod1.hul.harvard.edu/10.1177/0738894216659843>

Sources Used

<https://stackoverflow.com/questions/16498849/logistic-regression-with-robust-clustered-standard-errors-in-r>

<https://www.r-bloggers.com/2021/05/clustered-standard-errors-with-r/>

<https://statisticsglobe.com/name-variables-in-for-loop-dynamically-in-r>

<https://unc-libraries-data.github.io/R-Open-Labs/Extras/Stargazer/Stargazer.html>