

# Territorial Autonomy In the Shadow of Ethnic Rebellion: A Cure or A Curse

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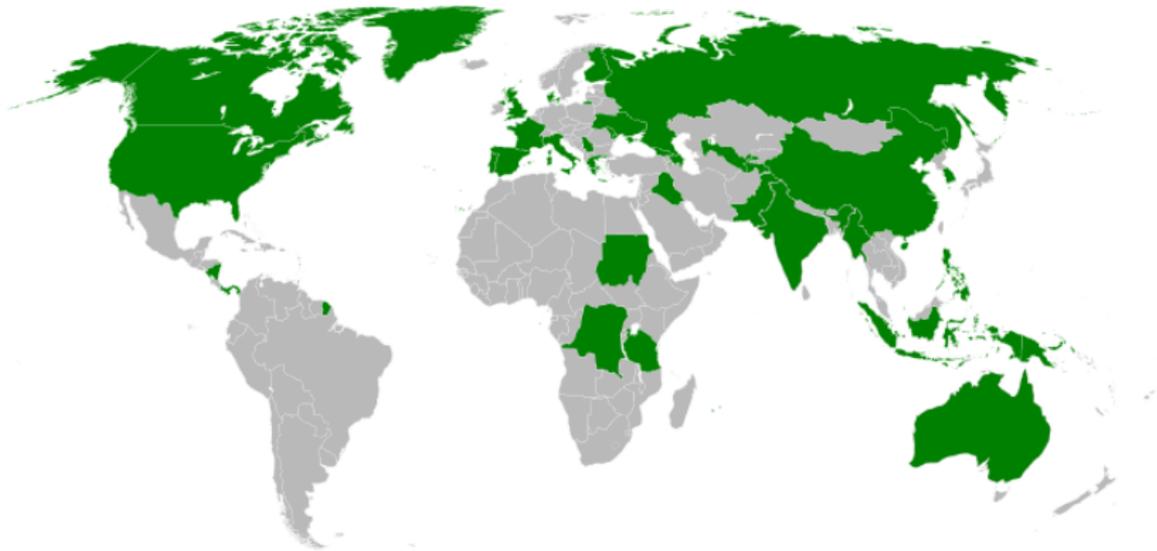
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## Puzzle

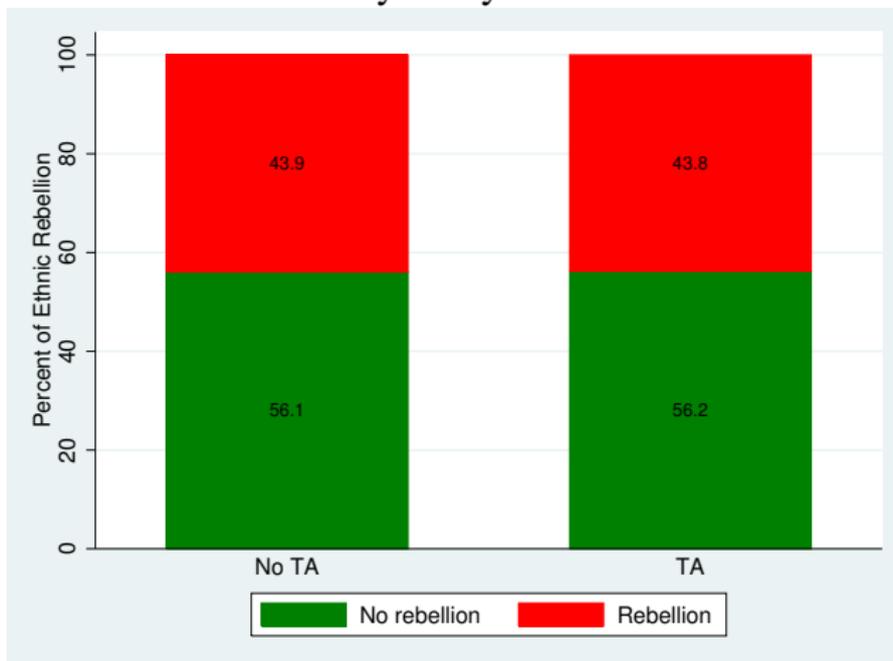
About 300 autonomous regions in 40 countries



Countries with at least one autonomous area

# Puzzle

Does autonomy really reduce conflict?



Source: CIDCM, MAR (aggregated by group-year)

# Research Questions

- ▶ Why territorial autonomy **reduces** ethnic rebellion in some cases but **NOT** in other cases?

# Successes and Failures of the Policy

- ▶ Territorial autonomy succeeded in some cases to end conflict:
  - ▶ India's Mizos
  - ▶ Mali's Tuaregs
  - ▶ Moldova's Gagauz
  
- ▶ It failed to end conflict in other cases:
  - ▶ Pakistan's Baluchis
  - ▶ Ethiopia's Afars, Somalis, and Oromo
  - ▶ India's Assamese and Bodos, Nagas, Tripuras and Sikhs

# Research Questions

- ▶ Why territorial autonomy **reduces** ethnic rebellion in some cases but **NOT** in other cases?
- ▶ If autonomy granting does not reduce ethnic rebellion, why do governments grant it in the first place?

## Definitions

- ▶ Territorial autonomy: self-governance of an ethnically distinct territorial unit (Ghai 2000; Weller and Nobbs 2011)
- ▶ Ethnic rebellion: anti-government violence

# Literature

## My critiques

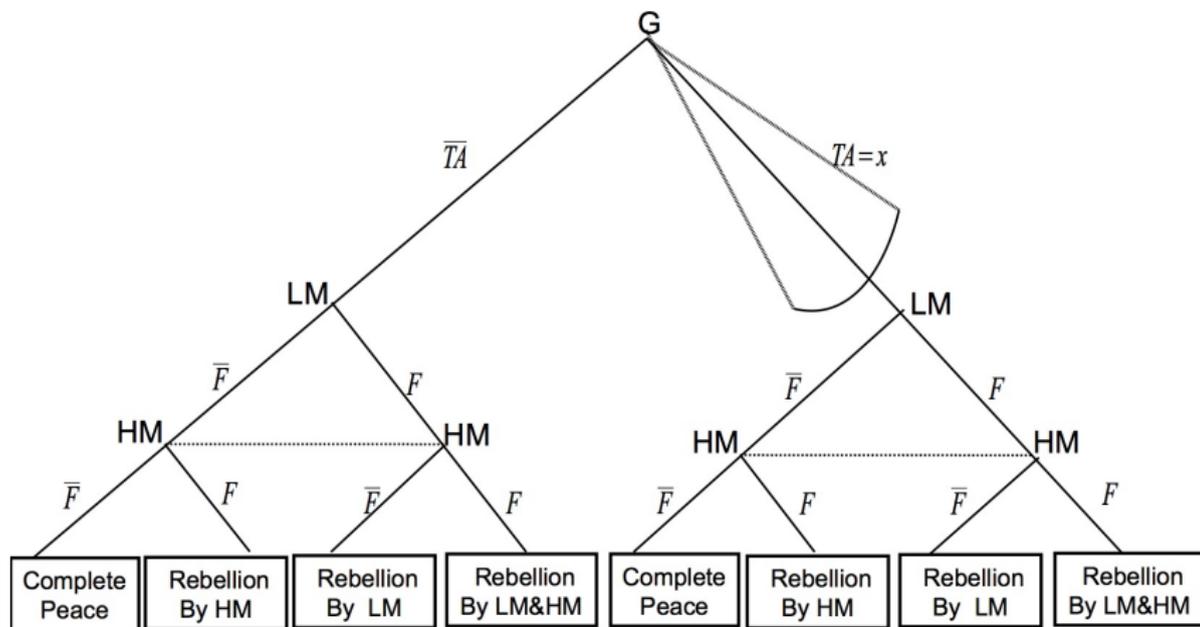
- ▶ Only explains either the successful or failed cases rather than the conditions under which each occurs
- ▶ Overlooks the intensity of ethnic rebellion.

To address these issues, we need to consider the internal divisions within minority groups.

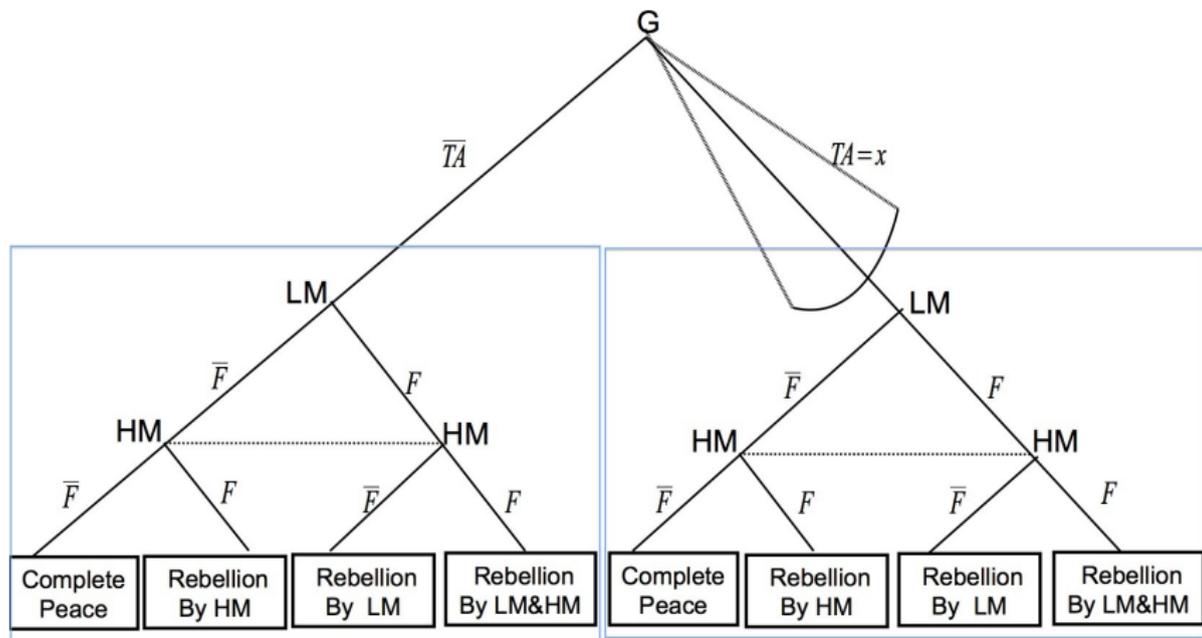
# EITM Framework

- ▶ Step ①: Theoretical and Statistical Concepts
  - ▶ Decision making shaped by bargaining and strategic interaction
  - ▶ Continuous choice: how autonomy is granted by government?
  - ▶ Discrete choice: rebel or not rebel by minority?

# Model



# Model



# EITM Framework

- ▶ Step ①: Theoretical and Statistical Concepts
  - ▶ Decision making shaped by bargaining and strategic interaction
  - ▶ Continuous: how autonomy is granted by government?
  - ▶ Discrete choice: rebel or not rebel by minority?
- ▶ Step ②: Theoretical and Statistical Analogues
  - ▶ Utility maximization
  - ▶ Subgame Perfect Equilibrium

## Assumptions about Actors' Payoffs

- ▶ All actors prefer more control of the ethnic region than less;
- ▶ All actors pay costs if they fight with each other;
- ▶ A successful rebellion is a public good for the whole minority.

# Equilibrium Analyses

Three types of equilibrium

1. No credible threats
2. Credible threats from only one faction
3. Credible threats from both factions

Credible threat is defined as when the government does not grant autonomy, the faction chooses to rebel.

# Equilibrium Analysis

1. When neither faction has a credible threat,
  - ▶ the government will have no incentives to grant autonomy.
  
2. When only one faction has a credible threat,
  - ▶ the government will offer autonomy to pacify that faction and achieve peace.

# Equilibrium Analysis

## 3. When both factions have credible threats,

- ▶ If  $c_G \geq c_G^*$ , the government will choose to offer an autonomy that is large enough to pacify both factions.
- ▶ If  $c_G < c_G^*$ , the government will choose to offer just enough autonomy to pacify the “cheaper” faction.

What is  $c_G^*$ ?

- ▶  $c_G^* = G$ 's gains from complete peace –  $G$ 's gains from fighting with the “expensive” faction
- ▶ It is a monotonic increasing function of difference of the cost of war of the two factions.

### 3. When both factions have credible threats,

- ▶ If  $c_G \geq c_G^*$ , the government will choose to offer an autonomy that is large enough to pacify both factions.
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# Predictions

## About rebellion occurrence

- ▶  $H_1$ : All else equal, the more internally divided the minority group, the less likely that autonomy granting will reduce the occurrence of ethnic rebellion initiated by the group.

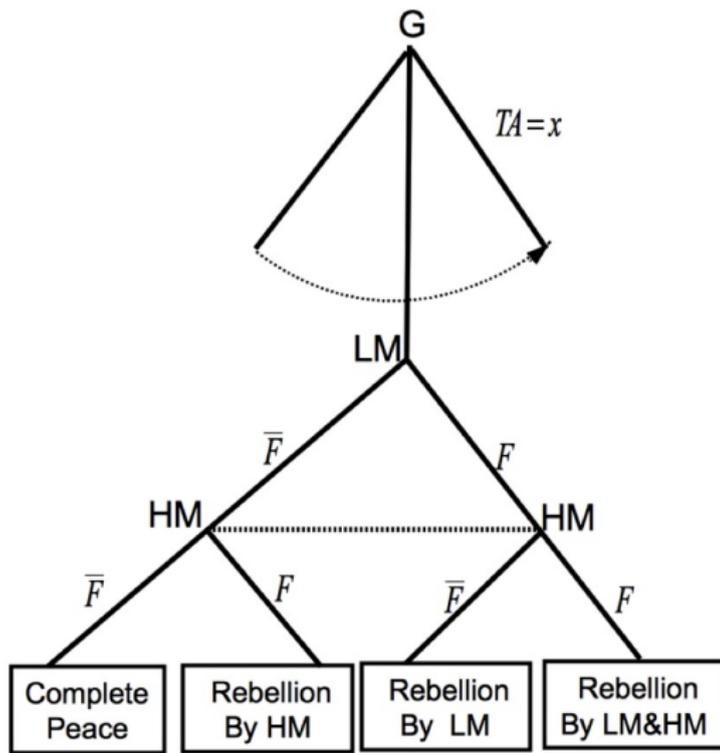
## About rebellion intensity

- ▶  $H_2$ : All else equal, autonomy granting reduces the intensity of ethnic rebellion initiated by ethnic groups.

# ETIM Framework

- ▶ Step ①: Theoretical and Statistical Concepts
  - ▶ Decision making shaped by bargaining and strategic interaction
  - ▶ Continuous, discrete choice
- ▶ Step ②: Theoretical and Statistical Analogues
  - ▶ Utility maximization
  - ▶ Subgame Perfect Equilibrium
- ▶ Step ③: Unifying and Evaluating the Analogues
  - ▶ Quantal Response Equilibrium

# Model



Stage 1 (Selection Stage)  
Decision Based on  
Variable  $x_G=f(\cdot)$

Stage 2 (Outcome Stage)  
Decision Based on  
Latent Variable  
 $y^*=g(y_{LM}^*(\cdot), y_{HM}^*(\cdot))$

# Modeling the Selection Stage: How Much $x$ is Granted by G

▶  $x_G = f(\cdot)$  ( $x \in [0, 1]$ )

▶ Beta Distribution

$$x_G = f(\cdot) = \text{Beta}(x|\alpha, \beta) = \text{prob}(x|\alpha, \beta) = \frac{x^{\alpha-1}(1-x)^{\beta-1}}{B(\alpha, \beta)} \quad (1)$$

## Modeling the Outcome Stage: Rebel or Nor Rebel

- ▶  $y = (y_{LM}, y_{HM})$ 
  - ▶ Bernoulli Distribution  $y_{LM} \in \{0, 1\}$ ,  $y_{HM} \in \{0, 1\}$
  - ▶  $y_{LM} = 1$  if  $y_{LM}^* = X_{LM}\beta_{LM} + \varepsilon_{LM} > 0$ . Otherwise,  $y_{LM} = 0$
  - ▶  $y_{HM} = 1$  if  $y_{HM}^* = X_{HM}\beta_{HM} + \varepsilon_{HM} > 0$ . Otherwise,  $y_{HM} = 0$
- ▶  $Pr(y) = g(y_{LM}^*(\cdot), y_{HM}^*(\cdot))$

$$\begin{aligned}Pr(y_{LM} = 0, y_{HM} = 0) &= \Phi_{bn}(-X_{LM}\beta_{LM}, -X_{HM}\beta_{HM}, \rho) \\Pr(y_{LM} = 0, y_{HM} = 1) &= \Phi_{bn}(-X_{LM}\beta_{LM}, X_{HM}\beta_{HM}, \rho) \\Pr(y_{LM} = 1, y_{HM} = 0) &= \Phi_{bn}(X_{LM}\beta_{LM}, -X_{HM}\beta_{HM}, \rho) \\Pr(y_{LM} = 1, y_{HM} = 1) &= \Phi_{bn}(X_{LM}\beta_{LM}, X_{HM}\beta_{HM}, \rho)\end{aligned}\tag{2}$$

## Two Stages Combined: Which Eq. Is Observed?

- ▶  $Pr(y_{Equilibrium_i} = 1) = f_{MLV}((Beta(.), \Phi_{bn}(.)))$

- ▶ If assuming  $Beta(.)$  and  $\Phi_{bn}(.))$  are independent,

$$Pr(y_{Equilibrium_i} = 1) = Beta(.) * \Phi_{bn}(.))$$

- ▶ Maximum Likelihood Estimation

- ▶  $L = L(f_{MLV}((Beta(.), \Phi_{bn}(.))))$

This may be an ideal way to link the theoretical model with the empirical implications. However,

# Barriers To Conduct QRE

- ▶ I only have group-level data. Faction-level data is not available.
  - ▶ It is impossible to model faction-level decisions. As such, I cannot know  $y_{LM}^*$  and  $y_{HM}^*$ .
  - ▶ A compromised solution: modeling the second stage as a whole rather faction by faction. That is, whether we observe a group  $M$  initiated ethnic rebellion or not.  $y_M \in \{0, 1\}$

$$y_M = 1 \text{ if } y_M^* = X_M \beta_M + \varepsilon_M. \text{ Otherwise, } y_M = 0$$

- ▶ It is hard to measure within-group division.
  - ▶ Within-group division is defined as the difference of the costs of war between factions.
  - ▶ It is hard to know how much that each ethnic faction truly cares about the issue in dispute.

# Predictions

## About rebellion occurrence

- ▶  $H_1$ : All else equal, the more internally divided the minority group, the less likely that autonomy granting will reduce the occurrence of ethnic rebellion initiated by the group.

## About rebellion intensity

- ▶  $H_2$ : All else equal, autonomy granting reduces the intensity of ethnic rebellion initiated by ethnic groups.

# Research Design

## Data

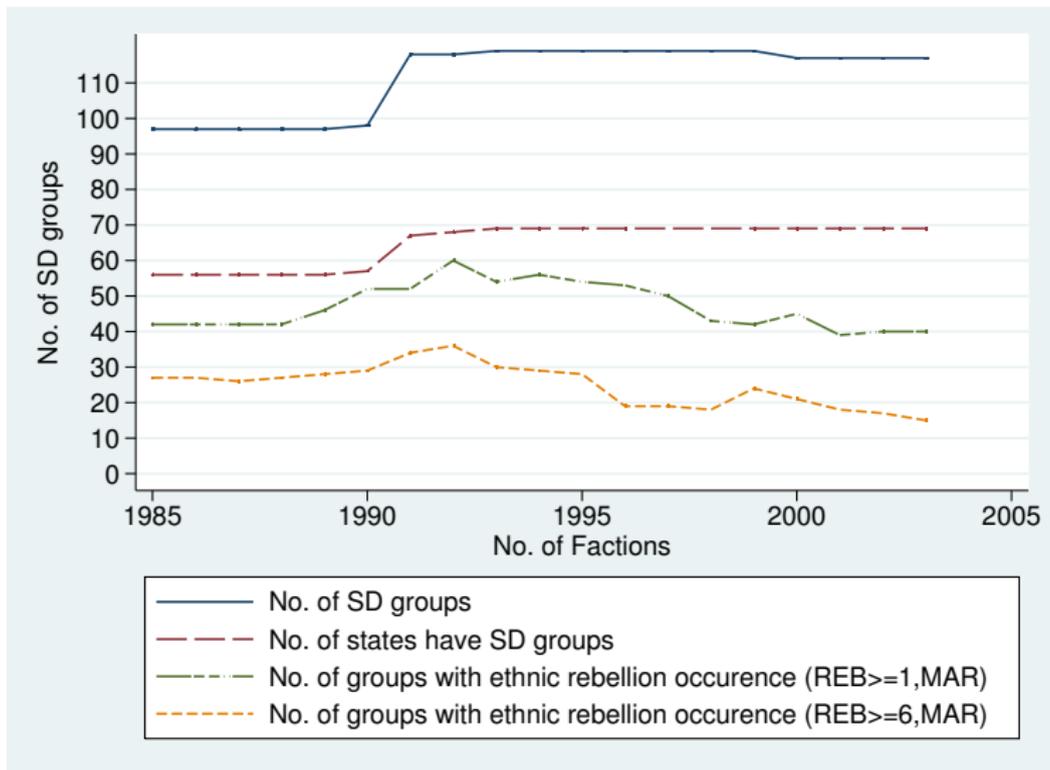
- ▶ Unit of analysis: group-year
- ▶ 122 self-determination (SD) groups (CIDCM)
- ▶ Time period: 1985-2003

# Research Design

## Dependent Variables

- ▶ **Rebellion occurrence: onset of organized attack against government** (MAR, Rebel score  $\geq 1$ )
- ▶ **Rebellion intensity: the scope of the rebellion**
  - ▶ No rebellion: no violence is reported (MAR, Rebel score =0)
  - ▶ Small rebellion: sporadic violence (MAR, Rebel score  $\in [1,5]$ )
  - ▶ Large rebellion: a guerrilla war (MAR, Rebel score  $\geq 6$ )

# Distribution of SD Groups and Ethnic Rebellion Occurrence



# Research Design

## Key Independent Variables

- ▶ Territorial autonomy granting
- ▶ Within-group divisions

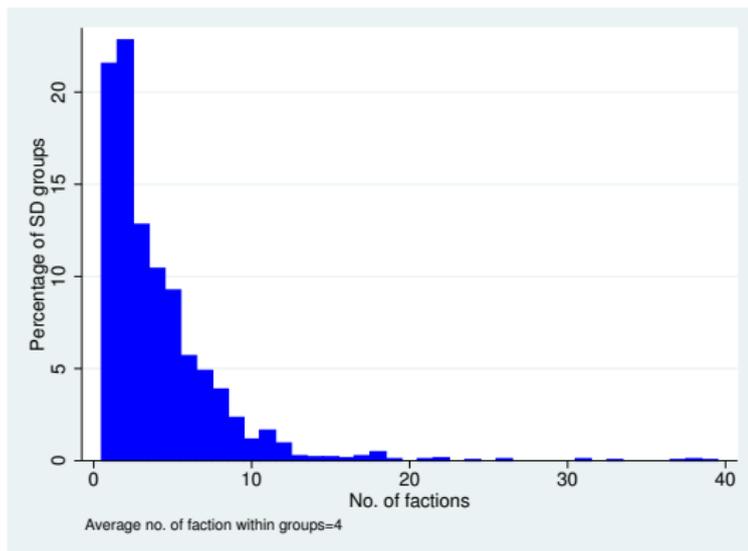
# Measuring Autonomy Granting: Dichotomous

- ▶ 17% of groups-years with TA (MAR, EPR, Benediter 2009, Acken 2009)
- ▶ Groups with TA are more likely to have small rebellions while groups without TA are more likely to have large rebellions.



## Measuring Within-group divisions : # of Factions

- ▶ Faction: an organization that claims to represent one ethnic group and makes demands for self-governance (Cunningham 2013)
- ▶ Assumption: the more factions within the group, the more internally divided the group is.



# Research Design

## Controls

- ▶ State-level factors
  - ▶ Democracy
  - ▶ State capacity
  - ▶ State population
  
- ▶ Group-level factors
  - ▶ Group size
  - ▶ Group concentration
  - ▶ Transnational kinship
  - ▶ Political exclusion
  - ▶ Economic discrimination

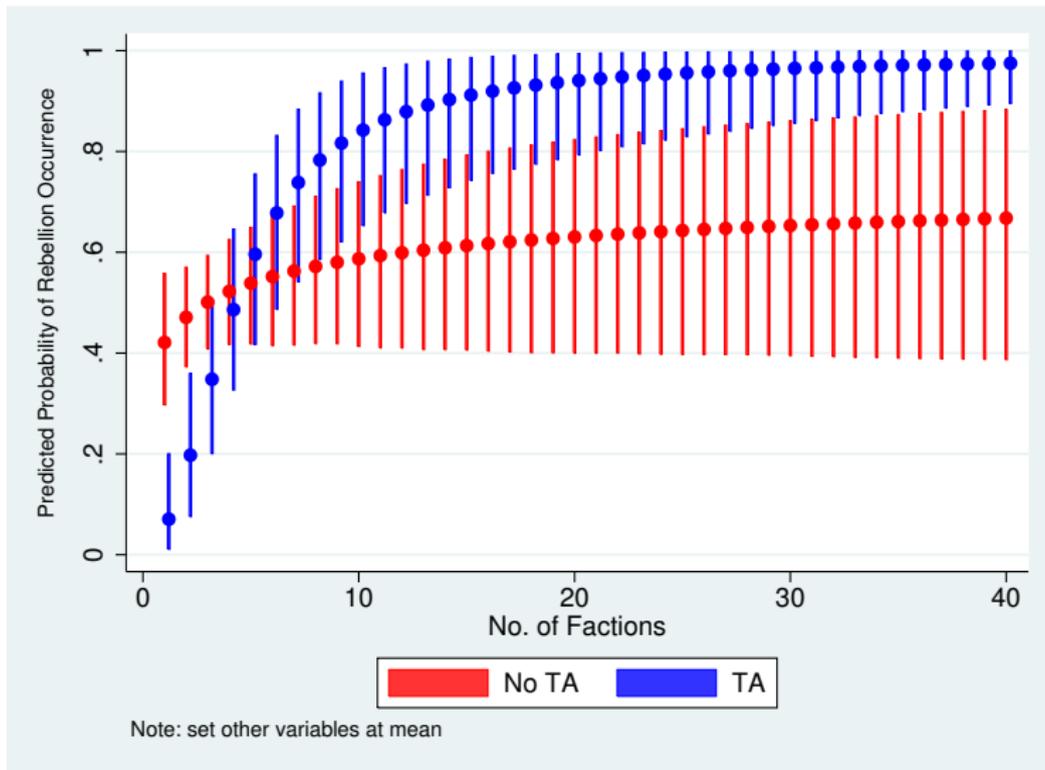
# Research Design

## Models

- ▶ Modeling whether TA reduces the occurrence of ethnic rebellion or not
  - ▶ Heckman selection model: (selection equation: logit ) +(outcome equation: logit)
  - ▶ Copula estimation: logit+logit
- ▶ Modeling whether TA reduces the intensity of ethnic rebellion or not
  - ▶ Heckman selection model: (selection equation: logit ) +(outcome equation: ordered logit)
  - ▶ Copula estimation: logit+ordered logit

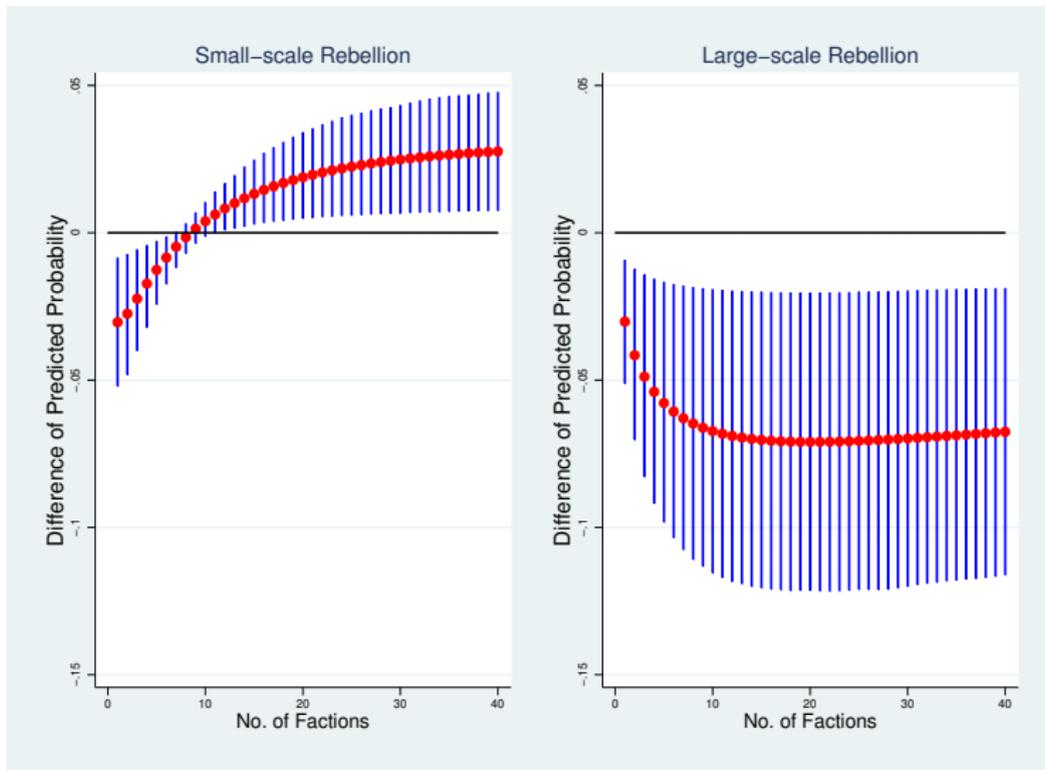
# Empirical Analysis

## Predicted Probability of Rebellion Occurrence: TA vs. No TA



# Empirical Analysis

## Substantive Effects of TA on Rebellion Intensity



# Conclusions

## Different purposes of autonomy granting

- ▶ Pacifying the whole minority: aiming to reduce the occurrence of ethnic rebellion;
- ▶ Pacifying only part of the minority: aiming to reduce the intensity of the ethnic rebellion.