POLS 602 Research Design

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Research Question

What is the effect of economic shocks in Middle Eastern countries on the intensity of protests within those countries?

Goal: Estimate causal effect of economic shocks on protest intensity

Importance: Helps characterize the region, has impact on the livelihood/safety of entire populations

Previous Literature

- Hollyer, Rosendorff, and Vreeland (2015): Find that economic transparency of autocratic governments leads to collective mobilization and protest
- Miguel, Satyanath, and Sergenti (2004): Use instrumental variable of rainfall to measure relationship between economic growth and civil conflict in Africa
    - Miguel and Satyanath (2011): Alternative instruments might be needed for assessing more recent conflicts
- Ponticelli and Voth (2020): Show that budget cuts in European countries are positively correlated with political instability

Estimands

Theoretical estimand: Change in protest intensity in Middle Eastern countries after experiencing economic shock

Empirical estimand:

- IV: Economic shock, clearly defined as some threshold of change in GDP per capita, unemployment, inflation, commodity price shocks, etc.
- DV: Protest intensity (scale, duration, and impact of anti-government protests)
    - Mass Mobilization protest dataset: over 10,000 anti-government protest events in 162 countries between 1990 and 2018
        - Includes protest size, timing, location, state repression (including whether people were killed), and protest outcomes

Identification Strategy

- Difference in difference design to isolate causal effect; parameter is the ATT (average treatment effect of the treated)
  - Treatment group: ME countries which experienced economic shock
  - Control group: ME countries which did not experience economic shock
    - Ex: Saudi Arabia and Iraq being highly dependent on oil (treatment), Morocco and Jordan having a more diversified economy (control)

Parallel Trends Assumption

- Without economic shocks, the outcome trends for protest intensity in the treated countries and the control countries would have been parallel
  - No anticipation which would have changed people's behavior, and effects from the economic shocked countries did not spill over into the control countries

Estimation Strategy and Bias

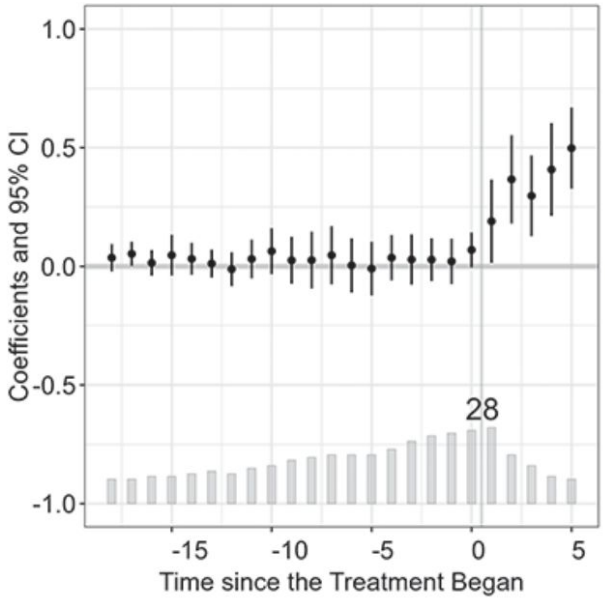
- OLS regression model

$$Y_{it} = \beta_o + \beta_1(\text{Post})_t + \beta_2(\text{Treatment})_i + \boldsymbol{\beta_3}(\text{Post x Treatment})_{it} + \boldsymbol{\epsilon}_{it}$$

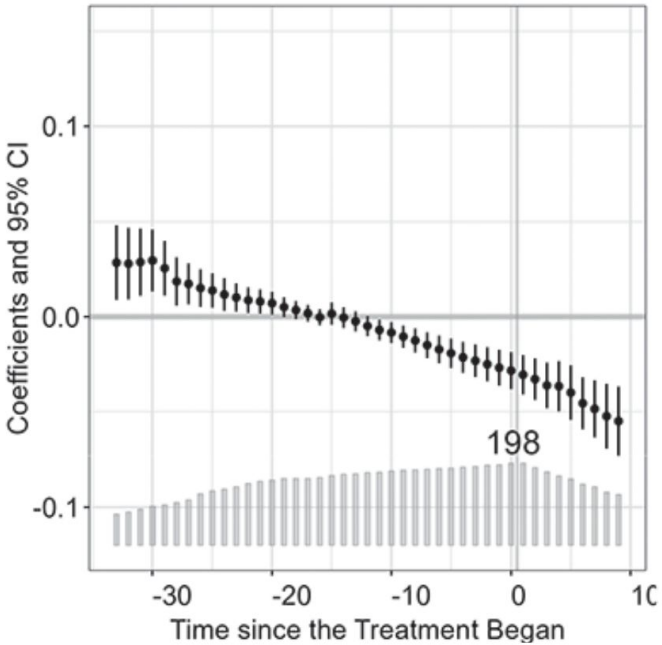
- Account for endogeneity
- Possible confounders: Religion, regime type
- Many possible contributors to protest intensity: Media (propaganda), social pressure, population
- Multicollinearity if economic shock and protest intensity are correlated in some way

Pre-Trend Plots

Cox and Dincecco (2021)
ATT: 0.44 (0.11)



Trounstine (2020)
ATT: -0.06 (0.01)



Chiu, Lan, Liu, and Xu (2025)

Interpretation and Contribution

- Study helps identify whether an economic theoretical account can explain variations in protest intensity in the Middle East
- Result interpretation: Under the identification assumptions, the estimated positive coefficient would provide support for the hypothesis that economic crises increase protest intensity
- Because this is an observational design, findings are conditional on those assumptions and therefore do not rule out all alternative explanations
- Contributes by advancing a stronger explanation of the crisis–protest link in the ME, by showing differential effects across regime contexts, bolstering possible explanation rather than prediction