

REBEL ATTACKS AGAINST ENERGY INFRASTRUCTURE AND ELECTORAL CONTESTATION: A CASE STUDY OF COLOMBIA

Rebecca Lordan-Perret, University of Chicago & Paul Scherrer Institute, +41 56 310 5274, rlordan@uchicago.edu
Austin Wright, University of Chicago, austinlw@uchicago.edu
Peter Burgherr, Paul Scherrer Institute, peter.burgherr@psi.ch
Matteo Spada, Paul Scherrer Institute, matteo.spada@psi.ch

Overview

Do the leftist guerrilla groups in Colombia – Las Fuerzas Armadas Revolucionarias de Colombia (FARC) and Ejercito de Liberacion Nacional (ELN) – use attacks on energy infrastructure to influence political as well as economic outcomes? On its face, the rebel groups, ELN and FARC, could achieve two main objectives (albeit through varying mechanisms) by attacking energy infrastructure: one financial and one political. The clear financial objective is extracting revenue through extortion or predation of resources to fund additional rebel activities. While the possible political objectives may be to influence electoral outcomes, exert control over leaders by controlling resources, or to undermine the legitimacy of the Colombian government and military. By influencing political outcomes, rebels stand to keep/place sympathetic leaders in positions of power. In turn, by exerting control over leaders, rebels can again shape policy outcomes and maintain local influence. Finally, undermining the Colombian government may be a method to win local support and degrade the democratic process. Since energy resources – especially oil – are vital to the Colombian economy, attacks involving these resources and their infrastructure may exert a particular leverage for rebel groups relative to other means of attack.

In this research, we investigate the political mechanism by asking whether attacks against energy infrastructure are strategically timed during election season. We consider each of the different types of elections (e.g. local and national) to detect evidence of changing tactics and motivations for attack. Finally, we look at political outcomes to assess the success of any strategically timed attacks.

Methods

Using the exogenously scheduled elections and weighted least squares (WLS) regression models in a fixed-effects framework, we identify the relationship between elections and rebel attacks on energy infrastructure. Our attack data come from a new database, The Energy Infrastructure Attack Database (EIAD) that was created by The Paul Scherrer Institute (PSI) and The Center for Security Studies at ETH Zurich, and has subsequently been maintained and updated through collaboration with PSI and The University of Chicago Harris School of Public Policy. The EIAD captures all reported EI attack incidents globally dating back to 1980 perpetrated by non-state actors. From 1980-2011, our database includes 2381 event-based observations of energy infrastructure attacks in Colombia. For each of these observations, we have information about the location, date, perpetrator, whether the attack was successful, and infrastructure involved in the attack. To construct our longitudinal panel of data for analysis, we aggregate the attacks in each municipality over the 31 years of data, resulting in 384 month-year observations of every one of the 1122 distinct municipalities in Colombia. This amounts to 430,848 total month-year observations. Of these observations, 60 % target the electricity sector, 37 % target the oil sector, and 3 % are targeting coal, hydro and natural gas combined.

To test our basic hypotheses, we estimate the following model where “Y” are our energy infrastructure attack outcomes, number of attacks per million inhabitants and a binary indicator of whether the municipality experienced any attacks.

Linear Model:

$$Y_{m,by} = \delta_0 + \delta_1 \text{elect}_{m,by} + \delta_2 \text{elect}_{m,y(\text{blag})} + \delta_4 \text{WTI}_{by} + \mathbf{X}_{m,by} + \lambda_m + \gamma_y + \alpha_m + \epsilon_{m,by}$$

We use the subscript “m” to stand for municipality, “b” for month, and the subscript “y” for year. The variables of interest are $\text{elect}_{m,by}$, a binary variable indicating whether the month-year coincides with an election and $\text{elect}_{m,y(\text{blag})}$ another binary lag variable that indicates whether the observation coincides with months preceding an election. The lag variable captures trends in violence leading up to an election, and we test different lags (three and six months). We control for the price of oil using the West Texas Intermediate Index (WTI) to further isolate the financial incentives to attack energy infrastructure from the political incentives. To control for time-varying characteristics, we use $\mathbf{X}_{m,by}$ – the characteristics here will include specification specific variables, indicated with the results. We also control for observed and unobserved time-invariant municipality characteristics that maybe correlated with both rebel attacks on energy infrastructure (our dependent variable) and elections (our independent variable). In these models, α_m captures these municipality fixed-effects. The year dummies, γ_y , account for any underlying annual trend

in violence, while the linear monthly time trend, λ_m , account for any underlying trend in violence over the span of the dataset (e.g. an increase in the use of violence on energy infrastructure since the 1990s.)

Results

Preliminary results show evidence that rebels strategically conduct attacks on electricity targets during the months of national elections; surprisingly, we do not estimate an effect for election months with oil attacks nor at the local election level. We are investigating possible explanations why we do not see an effect at the local level; we believe a limitation in the reported cases of oil attacks by oil companies may account for the asymmetry between oil and electricity attacks.

Conclusions

This paper contributes to literature on the resources curse, energy security, and internal conflict. Though not numerous, there are some papers discussing attacks against energy infrastructure and the possible motivations. Toft et al. (2010) suggest that energy targets have appeal in certain countries because of idiosyncratic symbolism (e.g. anti-capitalist) and for particular outcomes (e.g. "Economic warfare..."). Our preliminary findings support these conclusions, but also suggest that the increasing role of energy in an economy make these targets more attractive. Our research also contributes to the growing literature on rebel violence in Colombia. In particular, our results add to the mounting but still inconsistent evidence in Colombia that non-state groups are using violent attacks to influence elections (Acemoglu et al. 2009; Gallego 2011). We find rebel groups are indeed using strategic attacks on energy infrastructure to influence politics via elections. This finding also contributes to more general evidence that violent attacks are strategically timed close to elections to influence the electoral participation and outcomes. This research contributes to our understanding of resources in conflict zones and how the state and non-state actors employ these resources to achieve political and financial objectives.

References

- Acemoglu, D., Robinson, J.A. & Santos, R., 2009. The Monopoly of Violence: Evidence from Colombia. *National Bureau of Economic Research*, 15578. Available at: www.nber.org/papers/w15578.
- Dunning, T. & Wirpsa, L., 2004. Oil and the political economy of conflict in Colombia and beyond: a linkages approach. *Geopolitics*, 9(1), pp.81–108.
- Gallego, J.A., 2011. Civil Conflict and Voting Behavior : Evidence from Colombia. *SSRN*, 1911983, p.39. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1911983.
- Leech, G., 2011. *The FARC: The Longest Insurgency*, Zed Books Ltd.
- Toft, P., Duero, A. & Bieliauskas, A., 2010. Terrorist targeting and energy security. *Energy Policy*, 38(8), pp.4411–4421. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0301421510002600> [Accessed July 24, 2014].