Is State Incapacity Necessary for Civil Conflict?

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Motivation

The state capacity explanation of civil war offers a necessary, but not sufficient, condition for onset:

$$\text{onset} \Longrightarrow \text{low capacity.}$$

But, the current literature suffers from two problems:

1. Vague proxies for state capacity; and
2. Improper techniques to evaluate claims of necessity.

Contribution

Predictably, our contribution is twofold:

1. **Bring new data to bear** on the problem; and
2. **Apply an appropriate model** for necessity.

We find that remedying the existing problems yields results that cast serious doubt on the state capacity argument.

Data Problems and Remedies

Consider per capita GDP; its negative effect on onset can be interpreted in two very different ways:

1. **State Capacity**: income implies high capacity; or
2. **Economic Opportunities**: income implies higher opportunity costs for joining a rebellion.

But really, these seem like rationalizations for the inclusion of a crude—albeit useful—proxy for a variety of phenomena of interest.

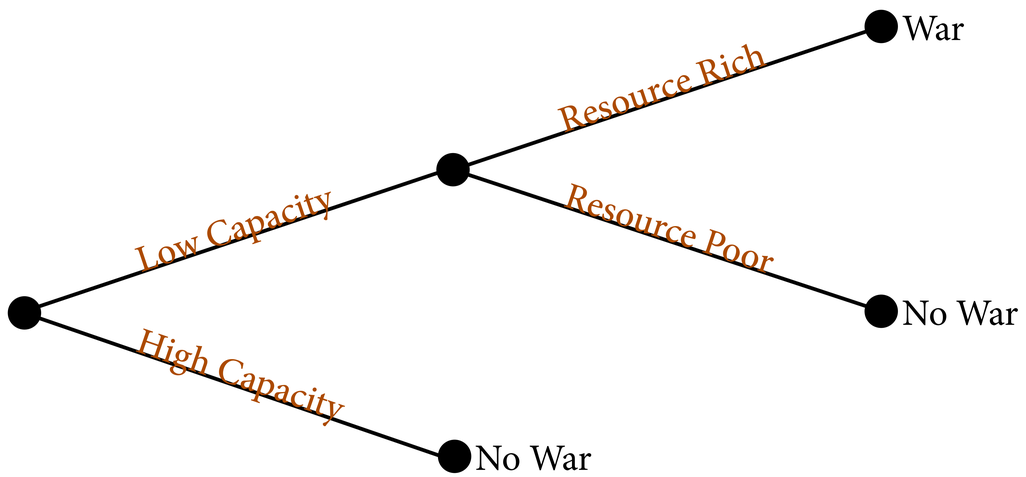
We therefore consider a more appropriate battery of exogenous variables that we believe tap into the **latent quality** that is state capacity:

1. Strength of the military;
2. Ability to tax;
3. Newness of the state;
4. Regime type; and
5. Years at civil peace.

We do the same for latent economic opportunities:

1. Oil production;
2. Diamond production;
3. Primary commodity export ratio;
4. Incoming foreign aid and grants;
5. Agricultural output;
6. Mountainous terrain;
7. Ethnic fractionalization; and
8. Regime Type

A Model of Necessity: The Split-Population Binary Choice Model



Letting $\boldsymbol{X}^C$ be a matrix of regressors associated with incapacity and $\boldsymbol{X}^R$ be a matrix of regressors associated with resource richness, we have the probability of peace:

$$\Pr\left(\boldsymbol{Y}^{CW}=0\right)=\Phi\left(-\boldsymbol{X}^C\boldsymbol{\beta}^C,1\right)+\Phi_2\left(\begin{bmatrix}\boldsymbol{X}^C\boldsymbol{\beta}^C\\-\boldsymbol{X}^R\boldsymbol{\beta}^R\end{bmatrix},\begin{bmatrix}1&\rho\\\rho&1\end{bmatrix}\right).$$

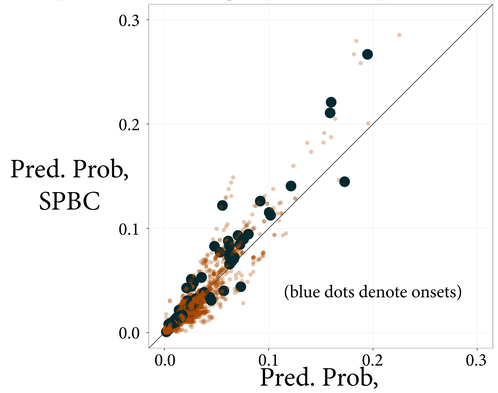
- $\Pr\left(\boldsymbol{Y}^{CW}=0\right)$: probability of peaceful outcome
- $\Phi\left(-\boldsymbol{X}^C\boldsymbol{\beta}^C,1\right)$: probability of selecting out by being high-capacity
- $\Phi_2\left(\begin{bmatrix}\boldsymbol{X}^C\boldsymbol{\beta}^C\\-\boldsymbol{X}^R\boldsymbol{\beta}^R\end{bmatrix},\begin{bmatrix}1&\rho\\\rho&1\end{bmatrix}\right)$: probability of being resource-poor despite being low-capacity

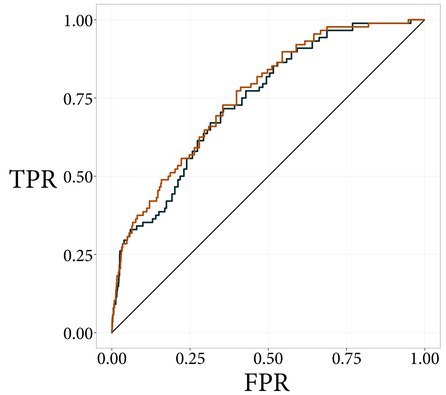
The associated probability for war, then, captures the joint probability for being low-capacity and resource-rich. Importantly, if a state is high-capacity, it does not affect estimation of the parameters for the resource equation very much. Estimation via the method of maximum likelihood is straightforward—note that we estimate both sets of regression coefficients along with the correlation term from the bivariate normal.

There is Compelling Evidence for the Necessary-Condition Approach...

There are plenty of good reasons to prefer the split-population model to a traditional probit model. Here are two:

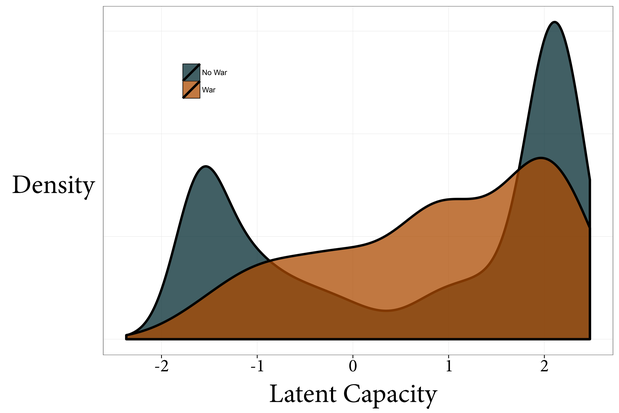
1. **It fits significantly better** (Clarke tests, ROC curve); and
2. **It produces stronger predicted probabilities**.





...But Not for the State Capacity Argument.

The model produces a structurally-estimated measure of state capacity. Strikingly, on average, **states that experience onset have higher capacity** than do peaceful states.



Discussion

The negative correlation coefficient estimate indicates that the **resource richness and high capacity are generally correlated**, though the estimate should not be over-interpreted.

The nonmonotonicity of the effect of regime type on civil war onset is not due to nonmonotonic effects on capacity; it is due to **cross-cutting effects of regime type** in the two processes.

If state capacity is decisive, then differences in economic opportunities among high-capacity states shouldn't matter. But **economic differences among high-capacity states matter more than among low-capacity states**.

When the necessity of capacity is explicitly modeled, the best predictors of onset are **newness of the state**, **regime type**, **reliance on agriculture**, **mountainous terrain**, and **ethnic fractionalization**.

References

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