The Oil Trade Network and Democratization

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Research Question

- How do autocratic oil producers reduce external democratizing pressures?
- For example, as the most important oil producer, the Saudi Arabian autocratic regime has survived with little dissent (see illustration).
- Prior studies have explained that Saudi Arabia has not democratized because government spending from oil revenues dampens domestic democratizing pressures.
- BUT, both *domestic* and *external* democratizing pressures affect democratization.

External Democratizing Pressures

- Direct forces from democratic great powers (e.g., economic sanctions, diplomatic pressures, military intervention)
- Indirect transplantation of democratic cultures (e.g., Internet communication, membership in IGOs, pop culture)

International Oil market and Oil Trade Ties

- Oil Market Structure: many importers, but few exporters (exporter-favored structure)
- The break of an oil trade tie → Higher costs to an importer than an exporter
- Oil trade ties of an autocratic oil exporter → Direct forces from democratic oil importers ↓

Three components of Oil Trade Ties

- Breadth: a state's number of oil trade partners (how many states may an autocratic oil exporter directly affect?)
- Depth: the total oil amount for a state's oil trade ties (how much may an autocratic oil exporter affect their oil trade partners?)
- Closeness: the level of a state's oil trade proximity to all other states, including non-trade partners (how much may an autocratic oil exporter indirectly affect the international oil trade market?)
- Breadth + Depth + Closeness = the level of a state's power in the international oil trade market

Hypothesis

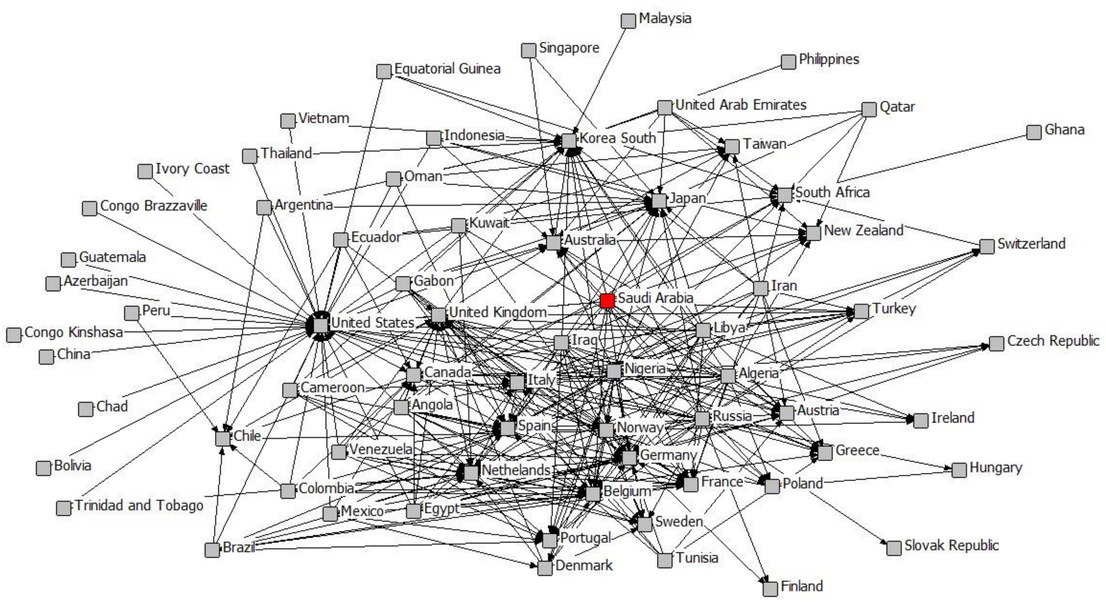
- An autocratic regime's power (breadth + depth + closeness) in the international oil trade network ↑, the likelihood of democratization ↓

Research Design

- Cox Hazard Model
- Unit of analysis: authoritarian spell (country-year) for all autocratic states from 1986 to 2008
- Dependent Variable: Democratization cases from 1986 to 2008 (Cheibub, Gandhi, and Vreeland 2010), N=920, 61 states, 18 democratic transitions

The Oil Trade Network

- In order to measure a state's power in the international oil trade market, I employ *network analysis*.
- The Oil Trade Network: 167 independent states from 1986 to 2008



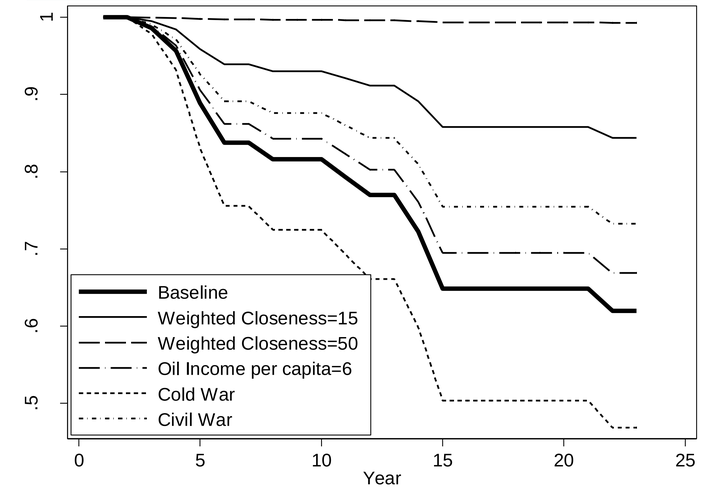
- Explanatory variable: state's closeness centrality in weighted networks
- Closeness centrality in weighted networks ($C_c^w(i)$) = Breadth + Depth + Closeness

$$d^w(i,j) = \min\left(\frac{1}{x_{ih}{}^{\alpha}} + \cdots + \frac{1}{x_{hj}{}^{\alpha}}\right)$$

$$C_c{}^w(i) = \left[\sum_{j=1}^{n} d^w(i,j)\right]^{-1} \quad (i \neq j).$$

- x_{ih}: the oil trade amount between state *i* and state *h*; α : a tuning parameter to determine the relative importance of depth to breadth; $d^w(i, j)$: the oil trade proximity between i and j in the oil trade network.

Results



- Results reveal that if an autocratic state has a high level of power in the international oil market, the state is much less likely to democratize.
- E.g., the solid line is Venezuela, and the long dash line is Saudi Arabia.
- The likelihood of democratization in Saudi Arabia after 20 years is nearly *zero* percent.
- The likelihood of democratization in Venezuela after 20 years is also low, *twelve* percent.

Conclusion

- Oil trade ties of autocratic oil exporters hinder democracy by reducing external democratizing pressures.
- Network analysis is useful to measure a state's power generated by its trade relations.
- This study reveals that if a state imports oil from an oil exporter and has high exit costs, the state may lose influence on the exporter. This relationship can be applied to other phenomena, including civil war and interstate conflict.

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