Foreign transfers and authoritarian peace

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Challenges to peace in autocracies

- Problem of authoritarian power-sharing and control (Svolik 2012)
- Autocracies more prone to civil war (Blattman and Miguel 2010)
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A possible solution: Financial transfers

- Government: oil, sovereign borrowing, aid
- Opposition: remittances, aid to rebels, natural resources (e.g., diamonds)
- Studied separately, although transfers often correlated
  - Remittances ease borrowing costs (Singer 2012)
  - Aid associated with migration (Bermeo and Leblang 2015)
  - Oil revenues (petro-dollars) affect sovereign finance (Frieden 1991)
Foreign transfers in nondemocracies

Unilateral transfers (e.g., aid, remittances) are important in less democratic countries.
What this paper does

General model of two-sided transfers and political violence

- Extend framework from Besley and Persson (2010)
- Incorporate transfers that go to incumbent (G) and opposition (H)
- Prediction: A decline in G and/or H makes a society more vulnerable to conflict, rising in contexts where (ex-ante) sharing institutions are less egalitarian
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General model of two-sided transfers and political violence

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Empirical evaluation

- Application: foreign transfers (foreign aid, migrant remittances)
- Prior studies: decline in aid or remittances may make conflict more likely
- Unexplored: Study *simultaneous* change in two-sided transfers on conflict, autocracy
2 groups, Incumbent (I) and Opposition (O), each with population normalized to 1
Each group earns wage rate, \( w \) (normalized to 1)
\( O \) receives transfer \( H \), \( I \) receives transfer \( G \)
Sharing institutions (exogenous): \( \theta \in [0, \frac{1}{2}] \)
2 groups, Incumbent (I) and Opposition (O), each with population normalized to 1
Each group earns wage rate, $w$ (normalized to 1)
$O$ receives transfer $H$, $I$ receives transfer $G$
Sharing institutions (exogenous): $\theta \in [0, \frac{1}{2}]$

Violence technology
$I$ and $O$ can fund an army, $A \in (0, 1)$, cost $wA$
Army size: $I$ can fund small ($S$) or large ($L$) army, $O$ can (only) fund small army $S$
Conflict function:

$$\gamma(A^O, A^I) = \begin{cases} 
0 & \text{if } A^I > A^O \\
1 & \text{if } A^I < A^O \\
\frac{1}{2} & \text{if } A^I = A^O 
\end{cases}$$

$O$ contributes to its own and incumbent's army (from $w$, $H$)
$I$ uses $G$ to finance its army
Setup

Single-shot game:

- Sequence of play: I starts in power, O chooses to attack or not, I defends or not

- End of period: State resources ($G$) divided between two groups, utility is linear in consumption (risk-neutral).
  - Group out of power: $\theta G$
  - Group in power: $(1 - \theta)G$
Setup

Single-shot game:
- Sequence of play: I starts in power, O chooses to attack or not, I defends or not
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  - Group out of power: \(\theta G\)
  - Group in power: \((1 - \theta)G\)

Payoffs (recall, \(w = 1\)):

\[
V^I(A^O, A^I) = (1 - \gamma(A^O, A^I))(1 - \theta)(G - A^I) + \gamma(A^O, A^I)\theta(G - A^I)
\]

\[
V^O(A^O, A^I) = (1 - \gamma(A^O, A^I))\theta(G - A^I) + \gamma(A^O, A^I)(1 - \theta)(G - A^I) - (1 - H)A^O
\]
Sequential game

- Sequential game: Opposition moves first
- Solution: Backward induction, find I’s optimal response first, then O
## Optimal responses

<table>
<thead>
<tr>
<th>Interval</th>
<th>G range</th>
<th>H range</th>
<th>Inc. response to</th>
<th>Opp.</th>
<th>Inc.</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$0 \leq G \leq \frac{S}{1-\theta}$</td>
<td>$0 \leq H \leq \frac{G(2\theta-1)+2S(1-\theta)}{2S-\theta}$</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Peace</td>
</tr>
<tr>
<td>2</td>
<td>$\frac{S}{1-2\theta} \leq G \leq \frac{2S(1-\theta)}{1-2\theta}$</td>
<td>$H \leq \frac{(G-S)(2\theta-L)}{2S}$</td>
<td>0</td>
<td>S</td>
<td>0</td>
<td>Repression</td>
</tr>
<tr>
<td>3</td>
<td>$\frac{S}{1-2\theta} \leq G \leq \frac{2S(1-\theta)}{1-2\theta}$</td>
<td>$H \geq \frac{(G-S)(2\theta-S)}{2S}$</td>
<td>0</td>
<td>S</td>
<td>S</td>
<td>Conflict</td>
</tr>
<tr>
<td>4</td>
<td>$0 \leq G \leq \frac{S}{1-2\theta}$</td>
<td>$H \geq \frac{G(2\theta-1)+2S(1-\theta)}{2S-\theta}$</td>
<td>0</td>
<td>0</td>
<td>S</td>
<td>Conflict*</td>
</tr>
<tr>
<td>5</td>
<td>$G \geq \frac{2L(1-\theta)-S}{1-2\theta}$</td>
<td>$H \geq 0$</td>
<td>S</td>
<td>L</td>
<td>0</td>
<td>Repression</td>
</tr>
</tbody>
</table>

Notes: * denotes “unchallenged” conflict (opposition insurgency).

### Inferences:

1. Higher levels of G and/or H tend to raise violence, e.g., Interval 1 $\Rightarrow$ 2, 2 $\Rightarrow$ 3
2. Conflict possible when G and/or H decline, i.e., Interval 5 $\Rightarrow$ 4 or 3
Fully sharing institutions ($\theta = \frac{1}{2}$)

Fix $S=0.2$, $L=0.4$

- Peace
- Repression
- Insurgency

G

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Partially sharing institutions \((\theta = \frac{1}{4})\)

Fix \(S=0.2, L=0.4\)

- Insurgency
- Peace
- Repression
- Conflict

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Non-sharing institutions ($\theta=0$)

Fix $S=0.2$, $L=0.4$
Implications

1. With full sharing institutions ($\theta = \frac{1}{2}$), two-sided conflict is unlikely. Unchallenged conflict (insurgency) is possible when incumbent has low resources ($G$).

2. Less egalitarian sharing institutions *increase* incidence of two-sided conflict when transfers *decline*.

3. Conflict is possible from a *simultaneous* reduction in $G$ and $H$ (i.e., movement in southwest direction) and is magnified where sharing institutions are less egalitarian ($\theta \to 0$).
Application: International financial transfers

Context

- Aid and remittances (AR) are an importance source of foreign transfers in developing countries
- Prior studies: Drop in aid or remittances associated with conflict (e.g., Nielsen et al. 2011, Regan and Frank 2014)
- Unexplored: Simultaneous increase (decrease) in AR

Challenges to inference

- AR is endogenous to conflict and regime type
- Quasi-natural experiment: Oil price induced AR shock to Muslim non-oil producers, relative to non-Muslim counterparts (Ahmed 2012)
- New evidence: AR reduces conflict and maintains institutional equilibrium (distinct from political survival)
Conclusion

This paper

- Model: Two-sided transfers can affect prospect of peace, varies across institutional settings ($\theta$)
- Implication: Declines in transfers to government and opposition can foster conflict, especially in less egalitarian institutional settings

Extensions

- Non-financial sources of conflict and political transitions
  - Interventions by foreign powers (Boix 2011, Anderson 2019)
  - Structure of international system (Kalyvas and Balcells 2010, Gunitsky 2017)
Quasi-natural experiment

- 1973-1985: AR “boom” in Muslim societies (left figure)
- AR boom positively correlated with world oil prices (right figure)
Empirical setup

Two-stage least squares (2SLS)

First stage: \( AR_{it} = a + b(MUSLIM_i \times POIL_t) + cX_{it} + C_i + Y_t + e_{it} \)

Second stage: \( V_{it} = \alpha + \beta AR_{it} + \gamma X_{it} + C_i + Y_t + \epsilon_{it} \)

- \( V_{it} \): Incidence of civil war or measure of democracy in country \( i \) in year \( t \)
- \( MUSLIM_i \): 1 if at least 75% of population identifies with Islam, 0 otherwise
- \( POIL_t \): Price of oil

Sample: non-oil producing developing countries, 1970-2000
Data: Armed Conflict Database, POLITY IV, World Development Indicators

Interpretation

- Second stage: Average treatment effect of AR in Muslim recipients (autocracies)
- If \( \beta < 0 \): AR lowers incidence of civil war, level of democracy
Aid and remittances foster authoritarian peace

- AR lowers incidence of civil war, does not upset institutional equilibrium

<table>
<thead>
<tr>
<th></th>
<th>Civil war</th>
<th>Democracy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) OLS</td>
<td>(2) OLS</td>
</tr>
<tr>
<td>Aid and remittances (% GDP)</td>
<td>-0.002 (0.001)</td>
<td>-0.017 (0.009)</td>
</tr>
<tr>
<td>Muslim × p(oil)</td>
<td>-0.002 (0.001)</td>
<td></td>
</tr>
<tr>
<td>F-stat. on instrument</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cragg-Donald</td>
<td>51.9</td>
<td>51.9</td>
</tr>
<tr>
<td>Kleibergen-Paap</td>
<td>9.98</td>
<td>9.98</td>
</tr>
<tr>
<td>Country FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.28</td>
<td>0.29</td>
</tr>
</tbody>
</table>

Notes: Robust standard errors, clustered by country reported in parentheses. The unit of observation is country-year (87 countries total). p(oil) is the world oil price in 2009 US$. Across all specifications, N=1777. All specifications include country and year fixed effects. These coefficients and a constant are not reported.
Threats to inference

Exclusion restriction
- Economic distress: control for GDP per capita ("dirty control")
- Foreign meddling: control for assassinations, exclude possible externalized conflicts
- Internal rent-seeking: control for coups

Confounders (omitted variables)
- Measures of repression: control for political rights, exec. constraints
- Political transitions in non-Muslim countries associated with declining oil prices
  - Latin America (Frieden 1991), Eastern Europe (Liberman 1998)
  - Control for LA dummy $\times$ p(oil), E.Europe dummy $\times$ p(oil)
- End of Cold War: control for Muslim $\times$ Cold War dummy
Channels: Sharing institutions as a mediator

- Sharing institutions ($\theta$) affect transitions (low $\theta$ → conflict)

- Need exogenous measure of $\theta$:
  - More ethnically diverse societies share less (Alesina and Ferrara 2005)
  - Societies with less democratic institutions share less (Lake and Baum 2001)
  - Societies with longer “state histories” are less democratic (Hariri 2012)

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<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>OLS</td>
<td>OLS</td>
</tr>
<tr>
<td>Aid and remittances (% GDP)</td>
<td>-0.001</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Muslim × p(oil)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td></td>
</tr>
<tr>
<td>State history × p(oil)</td>
<td>-0.007</td>
<td>-0.007</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.003)</td>
</tr>
<tr>
<td>ELF in 1961 × p(oil)</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
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