Aid and Conflict at the Local Level

The Role of Traditional and Emerging Donors

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Motivation

The Aid Conflict Nexus:

- USD 143 billion spent in 2016 on development aid
- China as a potentially "rogue donor" (Naím, 2007) is intensifying its donations to Africa
- Global prevalence of conflict: Syria, Afghanistan, Yemen, Philippines, Lybia...
- About 40% of global aid go to fragile and conflict affected states
- Recent research leaning towards a conflict enhancing effect of aid (Nunn and Qian, 2014; Crost et al., 2014)
Contribution

Research so far:
- Focus on US food aid (Nunn and Qian, 2014).
- Focus on few selected countries (Sexton, 2016; Child, 2016).
- Micro theories are examined with aggregated macro data (Collier and Hoeffler, 2004).

Our contribution is:
- ...analyzing the relationship between development aid and conflict at the local level.
- ...distinguishing between traditional and emerging donors.
- ...examining different mechanisms linking aid and conflict.
The spatial dimension

(a) Same Region

(b) Distant Region

- Conflict
- Aid
The spatial dimension

(a) Neighboring Region 1

(b) Neighboring Region 2

- Conflict
- Aid
Main Geospatial Datasets

- AidData:
  - World Bank IBRD-IDA, Version 1.4.2 (Strandow et al., 2011)
  - Chinese Official Finance to Africa (Strange et al., 2017)

- UCDP Global Event Database (GED) on organized violence from Sundberg and Melander (2013)
  - Used to construct low scale (more than 5 BRD) & medium scale (more than 25 BRD) binary conflict indicator

- Control variables from PRIO Grid (Tollefsen, Strand & Buhaug, 2012)
World Bank’s IDA disbursements globally

Note: Yearly means of gross IDA disbursements to ADM1 regions 1995-2012.
Chinese ODA-like flows to Africa

Note: Yearly means of gross Chinese ODA-like flows to ADM1 regions 2000-12.
Empirical Approach

\[ C_{ir,t} = \beta_1 A_{ir,t-1} + X_{ir,t-1} \beta_2 + \beta_3 \gamma_t + \beta_4 \lambda_r + \epsilon_{ir,t}, \]

where:
- \( C_{ir,t} \) is a binary conflict indicator,
- \( A_{ir,t-1} \) is the log of aid disbursements,
- \( X_{ir,t-1} \) is a vector of lagged control variables,
- \( \gamma_{it} \) refers to time and \( \lambda_r \) to regional fixed effects,
- further fixed effects & trends are added for robustness.
- Geo-localized data allows to control for several omitted variables via fixed effects and trends.
## Results OLS - Aid & Conflict (ADM1 level)

### Panel A: World Bank

<table>
<thead>
<tr>
<th></th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\ln(WBAid_{t-1}))</td>
<td>-0.1201***</td>
<td>-0.1191**</td>
<td>-0.0801</td>
<td>-0.0873</td>
<td>-0.0476</td>
<td>-0.0467</td>
</tr>
<tr>
<td></td>
<td>(0.0440)</td>
<td>(0.0497)</td>
<td>(0.0498)</td>
<td>(0.0535)</td>
<td>(0.0437)</td>
<td>(0.4656)</td>
</tr>
<tr>
<td>N:</td>
<td>40,432</td>
<td>40,432</td>
<td>40,432</td>
<td>40,432</td>
<td>40,432</td>
<td>40,432</td>
</tr>
</tbody>
</table>

### Panel B: China

<table>
<thead>
<tr>
<th></th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
<th>(\beta / se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\ln(ChineseAid_{t-2}))</td>
<td>-0.1027</td>
<td>-0.0783</td>
<td>-0.0928</td>
<td>-0.0966</td>
<td>-0.0444</td>
<td>-0.0468</td>
</tr>
<tr>
<td></td>
<td>(0.0818)</td>
<td>(0.0995)</td>
<td>(0.1146)</td>
<td>(0.1119)</td>
<td>(0.1303)</td>
<td>(0.1302)</td>
</tr>
<tr>
<td>N:</td>
<td>5,698</td>
<td>5,698</td>
<td>5,698</td>
<td>5,698</td>
<td>5,698</td>
<td>5,698</td>
</tr>
</tbody>
</table>

- **Exogeneous Controls**: No, Yes
- **Exogeneous Controls*Time**: No, Yes
- **Linear Regional Trends**: No, Yes
- **Lagged Endogeneous Controls**: No, Yes
- **Country-Year FE**: No, Yes

All regressions include Year & Region FE & country level time trends. Multi-way clustered standard errors by country-year and region in columns.

* \(p < 0.05\), ** \(p < 0.01\), *** \(p < 0.001\).
Instrumental Variable

- Difference-in-difference idea:
  Subnational regions are differentially affected by exogenous changes in donor’s overall budget (1st stage)

- Main identifying assumption:
  Change in overall funding position is not driven by conflict in one specific subnational recipient region

- IDA’s funding position:
  - Financial position over Bank’s undisbursed commitments (Dreher et al., 2017)

- Chinese steel production:
  - Chinese aid as a tool to distribute oversupply in steel production (Dreher et al., 2016)
Funding Positions and Battle Related Deaths

(a) World Bank

(b) China
IV - 2\textsuperscript{nd} stage - Aid & Conflict (ADM1 level)

<table>
<thead>
<tr>
<th>Panel A: World Bank</th>
<th>( \ln(\text{WBAid}_{t-1}) )</th>
<th>( \beta/\text{se} )</th>
<th>( \beta/\text{se} )</th>
<th>( \beta/\text{se} )</th>
<th>( \beta/\text{se} )</th>
<th>( \beta/\text{se} )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.0948</td>
<td>0.0343</td>
<td>-0.1257</td>
<td>-0.1396</td>
<td>0.0461</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.2027)</td>
<td>(0.2021)</td>
<td>(0.2017)</td>
<td>(0.2014)</td>
<td>(0.2009)</td>
</tr>
<tr>
<td>( N )</td>
<td></td>
<td>40,404</td>
<td>40,432</td>
<td>40,432</td>
<td>40,432</td>
<td>40,432</td>
</tr>
<tr>
<td>Kleibergen-Paap underidentification test p-value</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Kleibergen-Paap weak identification F-statistic</td>
<td>233.945</td>
<td>250.901</td>
<td>174.536</td>
<td>178.490</td>
<td>412.581</td>
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<thead>
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<th>( \ln(\text{ChineseAid}_{t-2}) )</th>
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<th>( \beta/\text{se} )</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>-1.2676</td>
<td>-0.5080</td>
<td>-0.5348</td>
<td>-0.3717</td>
<td>0.3306</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.4386)</td>
<td>(1.3308)</td>
<td>(1.4206)</td>
<td>(1.3679)</td>
<td>(0.3202)</td>
</tr>
<tr>
<td>( N )</td>
<td></td>
<td>5,190</td>
<td>5,180</td>
<td>5,180</td>
<td>5,180</td>
<td>5,180</td>
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<tr>
<td>Kleibergen-Paap underidentification test p-value</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<td></td>
</tr>
</tbody>
</table>

| Exogenous Controls | No | Yes | Yes | Yes | Yes | Yes |
| Exogenous Controls*Time | No | Yes | Yes | Yes | Yes | Yes |
| Lagged Endogeneous Controls | No | No | No | Yes | Yes | Yes |
| Country-Year FE | No | No | Yes | Yes | Yes | Yes |
| Linear Regional Trends | No | No | No | Yes | Yes | Yes |

All regressions include Year & Region FE & country level time trends. Multi-way clustered standard errors by country-year and region in columns.
* \( p < 0.05 \), ** \( p < 0.01 \), *** \( p < 0.001 \).
Conclusion & Outlook

Conclusion

- Baseline results suggest no relationship between average aid and overall conflict in the same region
- Robust to: standard error adjustment, choice of administrative units, choice of conflict threshold
Conclusion & Outlook

**Conclusion**

- Baseline results suggest no relationship between average aid and overall conflict in the same region
- Robust to: standard error adjustment, choice of administrative units, choice of conflict threshold

**Outlook**

- Spatial inequality in disbursements
- Consider ethnic grievances (Alesina et al., 2016)
- Different types of aid
- Consider conflict actors more specifically
Outlook: Aid Inequality (ADM1 level)

<table>
<thead>
<tr>
<th>Panel A: World Bank</th>
<th>$\beta/se$</th>
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<th>$\beta/se$</th>
<th>$\beta/se$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\ln(WBAid_{t-1})$</td>
<td>0.0123</td>
<td>0.0422</td>
<td>0.0547</td>
<td>0.0558</td>
<td>-0.0266</td>
<td>-0.0443</td>
</tr>
<tr>
<td></td>
<td>(0.0554)</td>
<td>(0.0621)</td>
<td>(0.0768)</td>
<td>(0.0808)</td>
<td>(0.0909)</td>
<td>(0.0875)</td>
</tr>
<tr>
<td>$\ln(WBAid_{t-1})_{adj}$</td>
<td>-1.0201**</td>
<td>-0.9009*</td>
<td>-0.8432</td>
<td>-0.8452</td>
<td>-1.0808*</td>
<td>-1.1185*</td>
</tr>
<tr>
<td></td>
<td>(0.4258)</td>
<td>(0.4784)</td>
<td>(0.6060)</td>
<td>(0.6133)</td>
<td>(0.6305)</td>
<td>(0.6386)</td>
</tr>
<tr>
<td>$\ln(WBAid_{t-1})_{ratio}$</td>
<td>0.0096</td>
<td>0.0165</td>
<td>0.0122</td>
<td>0.0071</td>
<td>0.0015</td>
<td>-0.0010</td>
</tr>
<tr>
<td></td>
<td>(0.0243)</td>
<td>(0.0237)</td>
<td>(0.0264)</td>
<td>(0.0267)</td>
<td>(0.0184)</td>
<td>(0.0203)</td>
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Exogeneous Controls: No Yes Yes Yes Yes Yes
Exogeneous*Time Controls: No Yes Yes Yes Yes Yes
Linear Regional Trends: No No Yes Yes Yes Yes
Lagged Endogeneous Controls: No No No Yes No Yes
Country-Year FE: No No No No Yes Yes

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* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. 
Thank you for your attention and your comments.

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### Outlook: Actors - (ADM1 level)

<table>
<thead>
<tr>
<th></th>
<th>World Bank Aid b/se</th>
<th>World Bank Aid b/se</th>
<th>Chinese Aid b/se</th>
<th>Chinese Aid b/se</th>
</tr>
</thead>
<tbody>
<tr>
<td>All_Gov</td>
<td>0.0525 (0.0886)</td>
<td>-0.0535 (0.0781)</td>
<td>-0.0485 (0.1491)</td>
<td>0.0575 (0.1630)</td>
</tr>
<tr>
<td>1side_Gov</td>
<td>-0.0394 (0.0464)</td>
<td>-0.0599 (0.5001)</td>
<td>-0.1206 (0.0842)</td>
<td>-0.0810 (0.1092)</td>
</tr>
<tr>
<td>All_NonState</td>
<td>0.0419 (0.1196)</td>
<td>-0.0497 (0.1176)</td>
<td>0.0473 (0.1970)</td>
<td>0.3090 (0.2058)</td>
</tr>
<tr>
<td>NonState vs NonState</td>
<td>0.0584 (0.0605)</td>
<td>0.0597 (0.0548)</td>
<td>-0.0329 (0.1210)</td>
<td>0.1601 (0.1327)</td>
</tr>
<tr>
<td>1side_NonState</td>
<td>-0.1623** (0.0779)</td>
<td>-0.0346 (0.0963)</td>
<td>-0.0928 (0.0781)</td>
<td>-0.0660 (0.0835)</td>
</tr>
<tr>
<td>Country-Year FE</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
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<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Kleibergeren-Paap weak identification F-statistic</td>
<td>157.096</td>
<td>178.913</td>
<td>57.858</td>
<td>70.100</td>
</tr>
</tbody>
</table>

All regressions include Year & Region FE, country level time trends, regional time trends and control variables. Multi-way clustered standard errors by country-year and region in columns.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. 

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Motivation

Data and Method

Empirical Strategy and Results

References
# Pre Trends - Aid & Conflict

**Panel A: World Bank:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\ln(WBAid_{t+1})$</td>
<td>$-0.0757^*$</td>
<td>$-0.0779^*$</td>
<td>0.0001</td>
<td>0.0012</td>
<td>0.0475</td>
</tr>
<tr>
<td></td>
<td>(0.0393)</td>
<td>(0.0409)</td>
<td>(0.0426)</td>
<td>(0.0471)</td>
<td>(0.0426)</td>
</tr>
</tbody>
</table>

**Panel B: China**

<table>
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<tr>
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<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\ln(ChineseAid_{t+1})$</td>
<td>0.0195</td>
<td>0.0074</td>
<td>0.0079</td>
<td>0.0101</td>
<td>0.0364</td>
</tr>
<tr>
<td></td>
<td>(0.1039)</td>
<td>(0.1278)</td>
<td>(0.1210)</td>
<td>(0.1303)</td>
<td>(0.1164)</td>
</tr>
</tbody>
</table>

- Exogeneous Controls: No, Yes, Yes, Yes, Yes
- Exogeneous Controls*Time: No, Yes, Yes, Yes, Yes
- Linear Regional Trends: No, No, No, No, Yes
- Lagged Endogeneous Controls: No, No, No, Yes, Yes
- Country-Year FE: No, No, Yes, Yes, Yes

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IV - 1st stages

\[ A_{ir,t-1} = \beta_1 Position_{i,t-1} \times Prob_{ir,t-2} + X_{ir,t-1} \beta_2 + \gamma_{t-1} + \lambda_r + \epsilon_{ir,t-1}, \]

- Potentially endogenous probability is captured in second stage by \( Prob_{ir,t-2} \)
- Interaction of endog. variable with an exog. variable can be interpreted as exogenous (Bun et al., 2014; Nizalova and Murtazashvili, 2016)

Go back to main part.
IV - 1st stage - IDA disbursements (ADM1 level)
IV - 1st stage - Chinese ODA-like flows (ADM1 level)
Reduced Form - IDA Position
Reduced Form - Chinese Steel