Aid on Demand: African Leaders and the Geography of China’s Foreign Assistance

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Introduction

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➤ “It is a small village, Yoni in Bombali district [in Sierra Leone]. It was recently built there by China Aid.”
➤ “Why would anyone want to build a wonderful school in the middle of what Africans call ‘the bush’?”
➤ “Here is a hint: Yoni is the home village of Sierra Leone’s president, Ernest Bai Koroma.”
Introduction

What we do:

▸ We introduce new geo-referenced data on the allocation of Chinese development projects across Africa from 2000–2011.

▸ We study the allocation of Chinese development assistance within African countries.

▸ We document more generous Chinese development assistance to the political leaders’ birth region, suggesting favoritism.

▸ We compare the subnational allocation of Chinese and World Bank development assistance.
Introduction

Structure of the presentation:

1. Literature
2. Background on Chinese aid
3. Data
4. Empirical specification
5. Empirical findings
6. Concluding remarks
Aid allocation at the country level:


▶ Dreher and Fuchs (forthcoming): Mixed findings on the allocation of Chinese foreign aid projects:
  ▶ China’s aid allocation is not influenced by democracy and governance in recipient countries.
  ▶ China’s aid allocation is not dominated by the countries’ natural resource endowments.
  ▶ Overall, Chinese aid does not seem to be allocated very differently than Western aid.
Literature

Aid allocation at the subnational level:


- Main differences of our study:
  1. Focus on Chinese aid.
  2. Panel of subnational regions from 47 African countries and 12 years.
Literature

Ethnic and regional favoritism:


- Hodler and Raschky (2014): Evidence for regional favoritism in a large sample of subnational administrative regions from all over the world.
  - Satellite data on nighttime light intensity, and information on the birth places of political leaders.
  - Subnational regions have more intense nighttime light when being the current political leader’s birth region.
  - This effect increases in (country-level) foreign aid inflows, in particular in weakly institutionalized recipient countries.
Background on Chinese aid

- Official principle of Chinese aid: Non-interference in internal affairs and respect for sovereignty
  - “In providing aid to other countries, the Chinese Government strictly respects the sovereignty of the recipient countries, and never attaches any conditions or asks for any privileges.”

- Chinese aid allocation is demand-driven, i.e., based on requests from recipient country governments:
  - The aid process formally begins when the host government proposes a project to the Chinese Economic and Commercial Counselor’s office.
  - This office submits the host government’s application to the Ministry of Commerce and the Ministry of Foreign Affairs in Beijing.
    - MOFCOM: “The initiative generally comes from the recipient side.”
    - MOH: “We send medical teams to the areas [. . .] selected by the host government.”
Data

Units of observation: Subnational administrative regions

- GADM database on Global Administrative Areas provides information on subnational administrative regions and their boundaries using geographic information systems (GIS).
- Focus on administrative regions at the first and second subnational level (ADM1 and ADM2).
- There are 709 ADM1 regions and 5,835 ADM2 regions in “our” 47 African countries.
Data on Chinese foreign aid:

- **Difficulties:**
  - Official data on the amount of Chinese aid do not exist.
  - The boundary between investment and aid is often blurred due to China’s involvement in large-scale investment projects.
  - China does not follow the reporting guidelines of the OECD’s Development Assistance Committee (DAC).
    - DAC defines ODA as “[g]rants or loans to [developing] countries [...] and to multilateral agencies which are:
      (a) undertaken by the official sector;
      (b) with promotion of economic development and welfare as the main objective;
      (c) at concessional financial terms (if a loan, having a grant element of at least 25 per cent).”
AidData’s China in Africa Dataset:
- Project-level dataset of Chinese official financing to Africa.
- Open source data collection and triangulation methodology that draws on media reports, recipient government documents and databases, NGO reports, scholarly articles, and MOFCOM/Chinese Embassy websites.
- Development projects are split into the following three categories:
  - ODA-like projects
  - OOF-like projects
  - Vague ODA- or OOF-like projects
- Dataset includes more than 1,500 development projects committed to 50 African countries from 2000-2011, amounting to more than USD 70 billion.
  - Largest recipients: Ghana, DRC, and Ethiopia.
Data

- Geo-coding data on Chinese official financing projects:
  - Geocoded dataset of Chinese official financing projects produced using the Strandow et al. (2011) methodology (and employing more than 60 RAs at AidData).
  - Some projects cannot be geo-referenced because of missing information.
  - All other projects are geo-referenced and come with a precision code.
  - We use GIS to assign geo-referenced projects to ADM1 and ADM2 regions (where feasible).
  - For projects with more than one location, we assign each location to the respective region, and we assume that the funding is equally distributed across locations.
  - In our sample, there are 1,898 (1,575) project-locations at the ADM1 (ADM2) level.
Data

- World Bank aid:
  - Geo-coded dataset by AidData containing all IDA and IBRD projects approved between 2000 and 2011.
    - IDA: International Development Association
    - IBRD: International Bank for Reconstruction and Development

- Dependent variables:
  - Total flow from Chinese development projects per region (in logs)
  - Total flow from Chinese ODA-like projects per region (in logs)
  - Total World Bank commitments per region (in logs)
  - Total IDA commitments per region (in logs)
Data

- Distribution of Chinese development projects across ADM2 regions:
Data on political leaders:

- The Archigos database identifies the effective political leader of each country for many years up to 2011.
- For all African leaders, we add the subnational administrative region in which they were born (Hodler and Raschky 2014).
- We code $\text{Birthregion}_{ict} = 1$ iff the political leader of country $c$ in year $t$ was born in region $i$. 
## Summary statistics at ADM1 level, 2000-2011

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total flows (in levels)</td>
<td>8,327</td>
<td>6.5m</td>
<td>86.8m</td>
<td>0</td>
<td>5.2b</td>
</tr>
<tr>
<td>ODA-like flows (in levels)</td>
<td>8,375</td>
<td>1.5m</td>
<td>29.1m</td>
<td>0</td>
<td>1.5b</td>
</tr>
<tr>
<td>WB commitments (in levels)</td>
<td>8,508</td>
<td>5.86m</td>
<td>31.31m</td>
<td>0</td>
<td>2.06b</td>
</tr>
<tr>
<td>IDA commitments (in levels)</td>
<td>8,508</td>
<td>4.63m</td>
<td>16.39m</td>
<td>0</td>
<td>297m</td>
</tr>
<tr>
<td>Birthregion</td>
<td>8,508</td>
<td>0.067</td>
<td>0.249</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Empirical strategy

\[ Aid_{ict} = \alpha_{ct} + \delta_{ic} + \gamma \text{Birthregion}_{ict} + \epsilon_{ict} \]
## Empirical findings

### Birth regions and Chinese aid I

<table>
<thead>
<tr>
<th>Units of obs.</th>
<th>(1) ADM1</th>
<th>(2) ADM2</th>
<th>(3) ADM1</th>
<th>(4) ADM2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variables</td>
<td>Total flows (in logs)</td>
<td>Total flows (in logs)</td>
<td>ODA-like flows (in logs)</td>
<td>ODA-like flows (in logs)</td>
</tr>
<tr>
<td>Birth region</td>
<td>1.082*** (0.369)</td>
<td>0.277 (0.257)</td>
<td>0.569* (0.301)</td>
<td>0.281 (0.221)</td>
</tr>
<tr>
<td>Country-year FE</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Region FE</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.296</td>
<td>0.098</td>
<td>0.277</td>
<td>0.068</td>
</tr>
<tr>
<td>Observations</td>
<td>8,327</td>
<td>69,817</td>
<td>8,375</td>
<td>69,880</td>
</tr>
<tr>
<td>Regions</td>
<td>709</td>
<td>5,835</td>
<td>709</td>
<td>5,835</td>
</tr>
</tbody>
</table>

Note: Standard errors (in parentheses) clustered at the leader level.
## Empirical findings

### Birth regions and Chinese aid II

<table>
<thead>
<tr>
<th>Units of obs.</th>
<th>(1) ADM1</th>
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<tbody>
<tr>
<td>Dependent variables</td>
<td>Total flows (in logs)</td>
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<td>ODA-like flows (in logs)</td>
<td>ODA-like flows (in logs)</td>
</tr>
<tr>
<td>Birthregion</td>
<td>1.309***</td>
<td>0.330</td>
<td>0.593*</td>
<td>0.181</td>
</tr>
<tr>
<td></td>
<td>(0.378)</td>
<td>(0.254)</td>
<td>(0.307)</td>
<td>(0.224)</td>
</tr>
<tr>
<td>Prebirth</td>
<td>0.467</td>
<td>-0.088</td>
<td>-0.772</td>
<td>-0.589</td>
</tr>
<tr>
<td></td>
<td>(0.893)</td>
<td>(0.589)</td>
<td>(0.562)</td>
<td>(0.430)</td>
</tr>
<tr>
<td>Postbirth</td>
<td>1.471*</td>
<td>0.527</td>
<td>0.836</td>
<td>-0.294</td>
</tr>
<tr>
<td></td>
<td>(0.816)</td>
<td>(0.612)</td>
<td>(0.731)</td>
<td>(0.539)</td>
</tr>
<tr>
<td>Country-year FE</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Region FE</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.297</td>
<td>0.098</td>
<td>0.278</td>
<td>0.069</td>
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<td>Total flows</td>
<td>Total flows</td>
<td>IDA flows</td>
<td>IDA flows</td>
</tr>
<tr>
<td></td>
<td>(in logs)</td>
<td>(in logs)</td>
<td>(in logs)</td>
<td>(in logs)</td>
</tr>
<tr>
<td>Birthregion</td>
<td>-0.127</td>
<td>0.114</td>
<td>-0.061</td>
<td>0.169</td>
</tr>
<tr>
<td></td>
<td>(0.160)</td>
<td>(0.387)</td>
<td>(0.156)</td>
<td>(0.384)</td>
</tr>
<tr>
<td>Country-year FE</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Region FE</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.407</td>
<td>0.241</td>
<td>0.420</td>
<td>0.250</td>
</tr>
<tr>
<td>Observations</td>
<td>8,508</td>
<td>70,020</td>
<td>8,508</td>
<td>70,020</td>
</tr>
<tr>
<td>Regions</td>
<td>709</td>
<td>5,835</td>
<td>709</td>
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Empirical findings

Some robustness checks:

- Results very similar when lagging the leader region dummies.
- No heterogeneity of the effect w.r.t to political institutions and UNGA voting.
- No effect of the political leaders’ ethnicity when using sub-national ethnographic regions (but based on fewer project locations and fewer “useful” political transitions).

Cross-sectional within-country specifications (i.e., country-year FE, but no region FE):

- No evidence for more Chinese aid to resource-rich regions.
- Less Chinese aid to poor/rural regions.
Conclusions

Main finding:

▶ More generous Chinese aid to the political leaders’ birth region, while the same does not hold true for World Bank aid.

Our interpretation:

▶ China’s demand-driven aid allocation allows African leaders to (mis)use Chinese aid for regional favoritism and patronage.