Ties That Bind: 
The Impact of Tied Aid on Development

Paula Ganga & Desha Girod

IPES 2019
Tied Aid

• Foreign aid is commonly characterized as money donors give to developing countries or NGOs in developing countries

• The characterization is only true of untied aid

• Tied aid is substantial
  - From US$0.9 billion in 1973 to US$11.6 billion in 2013 (excludes non-Western donors)
  - High of US$263 per capita in Iraq in 2005

• ...but largely overlooked quantitatively (Knack and Smets 2013)
Research Question & Argument

How does tied aid affect development?

We argue tied aid should harm development because recipients lack incentive to comply with donors’ development agenda.
Method

Quantitative analysis of 3,159 country-years

152 developing countries (1973 – 2013)

Data from AidData on tied aid
&
The World Bank on compliance
Outline

• Tied Aid: Mixed Motives

• Research Design

• Results

• Implications
Mixed Motives: ODA and Export Subsidy

Companies – a “cartel of domestic interest groups over foreign aid” get subsidies and lobby to maintain contracts

Andrew Natsios, USAID Administrator
(US State Department, 2005)

Mixed Motives: ODA and Export Subsidy

Recipients of US food aid contracts in 2010-11

“Growing, manufacturing, bagging, shipping and transportation of nutritious U.S. food creates jobs and economic activity here at home, provides support for our U.S. Merchant Marine ... and sustains a robust domestic constituency for these programs not easily replicated in foreign aid programs.”

Consequences for Development

• Leaders seek political survival (Bueno de Mesquita et al. 2005)

• Implementing development agenda is costly and may not benefit political survival (Summers and Pritchett 1993; Bueno de Mesquita and Smith 2010; Acemoglu and Robinson 2006)

• Tied aid is fungible (as is untied aid), allowing expenditures for patronage and security

• In contrast to untied aid, donor threat to withdraw tied aid is not credible
Ghana early 1990s

“One would think that holding one eighth of the annual import bill of a poor cash strapped economy would give enormous leverage to the World Bank and the donors to dictate terms to the Ghanaians. In fact, as the representative of the World Bank on the ground, I came under pressure from several sources ... to release the tranche ... There was a steady stream of private sector representatives ... arguing for release of the tranche ... because some of them had specific contracts with the government which were unlikely to be paid on time if the government did not in turn get the money from the World Bank and other donors ... The steady flow of aid is a source of income to many interest groups in the donor country. Their dominant concern is their income, not necessarily the wellbeing of the aid recipients. If conditionality is violated, the short term interest of these groups is for the aid to flow in any case (at least, that part of the aid which flows back to them).” – Kanbur (2006, 13)
Hypotheses

(1) Increases in tied aid should reduce per capita income

(2) Increases in tied aid should reduce per capita income when compliance with the donor development agenda is low
Tied Aid: Mixed Motives

- Research Design
- Results
- Implications
Research Design

Dependent Variable: annual % change in per capita income (5-year ave after aid disbursement)

Sample: 3,159 country years (152 developing countries, 1973-2013)

Independent Variables: log(1+tied aid) (lagged 5 year ave); compliance (average per country year) (Girod and Tobin 2016)
Research Design

**Dependent Variable**: annual % change in per capita income (5-year ave after aid disbursement)

**Sample**: 3,159 country years (152 developing countries, 1973-2013)

**Independent Variables**: log(1+tied aid) (lagged 5 year ave); compliance (average per country year) (Girod and Tobin 2016)

> “the extent to which the borrower complied with covenants and agreements. The following criteria are taken into account: government ownership and commitment to achieving objectives, adequacy of stakeholder involvement, timely resolution of implementation issues, adequacy of M&E arrangements and relationship with donors/partners” (Smets, Knack, and Molenaers 2012, 34).
Research Design

**Dependent Variable:** annual % change in per capita income (5-year ave after aid disbursement)

**Sample:** 3,159 country years (152 developing countries, 1973-2013)

**Independent Variables:** \( \log(1+\text{tied aid}) \) (lagged 5 year ave); compliance (average per country year) (Girod and Tobin 2016)

**Controls:** untied aid, GDP per cap, executive constraints, battle deaths, FDI per cap, infant mortality, resource rents per cap, country fixed effects

**Model:** OLS with standard errors clustered by country
Outline

✓ Tied Aid: Mixed Motives

✓ Research Design

• Results

• Implications
## Key Results From Regression Analysis

(1)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tied aid per capita</td>
<td>-1.753***</td>
</tr>
<tr>
<td></td>
<td>(0.342)</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Tied aid per capita X compliance</td>
<td></td>
</tr>
</tbody>
</table>

Full results in paper
Figure 1: Marginal Effect of Tied and Untied Aid on GDP Per Capita Growth

Note: Panels A and B are based on Table 1, Model 1. The Y-axis represents the annual percent GDP per capita growth averaged over a five year period after the disbursement of aid and the X-axis represents tied and untied aid. In each panel, the solid black line demonstrates the effect of aid on percent change in economic development. The dotted lines represent 95% confidence intervals. As tied aid increases, development gets worse (panel A), consistent with the Negative and not the Positive Tied Aid Hypothesis. In the case of untied aid, panel B shows that an increase in untied aid increased economic development.
### Key Results From Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tied aid per capita</td>
<td>-1.753***</td>
<td>-2.866***</td>
</tr>
<tr>
<td></td>
<td>(0.342)</td>
<td>(0.601)</td>
</tr>
<tr>
<td>Compliance</td>
<td></td>
<td>3.318***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.200)</td>
</tr>
<tr>
<td>Tied aid per capita X compliance</td>
<td></td>
<td>-1.393**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.615)</td>
</tr>
</tbody>
</table>

Full results in paper
Marginal Effect of Tied Aid on Growth when Compliance is Low

Figure 2: Marginal Effect of Low Levels of Compliance on GDP Per Capita Growth

Note: Panels A and B are based on Table 1, Models 3 and 4. The Y-axis represents the annual percent GDP per capita growth averaged over a five year period after the disbursement of aid and the X-axis represents aid. In each panel, the solid black line demonstrates the effect of aid on percent change in economic development at low levels of compliance. The dotted lines represent 95% confidence intervals. At low levels of compliance, as tied aid per capita increases, development gets worse (panel A), consistent with the Negative and not the Positive Tied Aid Hypothesis. In the case of untied aid per capita, panel B shows that an increase in aid has no effect on economic development.
To address potential endogeneity

1. Lag structure

2. System GMM

3. Instrumental variable: US wheat production (Nunn and Qian 2014)

Additional Robustness Checks

1. Other controls
2. Changed DV to infant mortality
3. Changed IV to proportion tied aid
4. Included YFE, time trend
5. Changed lag structure
6. Excluded each donor
7. Excluded each recipient
Outline

✓ Tied Aid: Mixed Motives

✓ Research Design

✓ Results

• Implications
Implications

• Nascent literature on private sector and aid (Malik and Stone 2018; McLean 2017)

• Highlight that aid disbursement includes a controlling role for companies

• Tied aid may drive some of the negative effect of aggregate aid on development
Comments/Questions
desha.girod@georgetown.edu
Figure 1: Marginal Effect of Tied and Untied Aid on GDP Per Capita Growth

Note: Panels A and B are based on Table 1, Model 1. The Y-axis represents annual percent GDP per capita growth averaged over a five year period after the disbursement of aid and the X-axis represents tied and untied aid. In each panel, the solid black line demonstrates the effect of aid on percent change in economic development. The dotted lines represent 95% confidence intervals. As tied aid increases, development gets worse (panel A), consistent with the Negative and not the Positive Tied Aid Hypothesis. In the case of untied aid, panel B shows that an increase in untied aid increased economic development.
Figure 2: Marginal Effect of Low Levels of Compliance on GDP Per Capita Growth

Note: Panels A and B are based on Table 1, Models 3 and 4. The Y-axis represents the annual percent GDP per capita growth averaged over a five year period after the disbursement of aid and the X-axis represents aid. In each panel, the solid black line demonstrates the effect of aid on percent change in economic development at low levels of compliance. The dotted lines represent 95% confidence intervals. At low levels of compliance, as tied aid per capita increases, development gets worse (panel A), consistent with the Negative and not the Positive Tied Aid Hypothesis. In the case of untied aid per capita, panel B shows that an increase in aid has no effect on economic development.