

Hazardous Aid?: The Crowding-Out Effect of International Charity

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- **Introduction**
- Empirics
- Conclusion
- Outlook

Situation:

- Since 1900 natural disasters have killed over 62 million people world-wide (OFDA/CRED 2003)
- Of all large scale catastrophes world-wide between 1994 and 2004, 79% of general catastrophes occurred in countries receiving OECD aid
- 92% of all fatalities from catastrophes are from aid-receiving countries

Mitigation and aid (I):

- Ex-ante risk management strategies against large-scale catastrophes can limit the extent of losses (Kunreuther & Pauly 2006, Anbarci et al. 2005)
- Mitigation activities in case of earthquakes:
 - Enforcement of building codes, highways and other structures
 - Retrofitting of bridges
 - Zoning regulations
- Mitigation activities usually financed by taxes

Mitigation and aid (II):

- Socio-economic factors that can influence a nation's level of protection against large-scale disasters.
 - low levels of GDP (Kahn 2005, Stroemberg 2007)
 - low quality of institutions (Kahn 2005)
 - high levels of inequality (Anbarci et al. 2005)
- The Samaritan's Dilemma suggests that the anticipation of foreign aid might also diminish ex-ante protection activities (Buchanan 1975, Coate 1995)

The Sequence of Events:

Foreign aid

T_{t-x}

Decision on

τ

Nature

chooses

Int.community

chooses T

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Hypothesis:

Foreign aid received in preceding periods crowds-out protection against catastrophic events and can result in a lower probability of surviving.

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- Major earthquake events 1980-2002: EM-DAT Emergency Disaster Data Base
- GDP p.c. & population density: Penn World Tables
- Gini coefficient: Deininger & Squire 1998
- Foreign aid: OECD International Development Statistics
- Polity IV: University of Maryland
- Earthquake risk: Dilley et. al 2005

$$\begin{aligned} \ln(1 + Death_{ijt}) = & \beta_0 + \beta_1 \ln(DAC_{j,t-1}) + \beta_2 \ln(GDP_{jt}) + \beta_3 Gini_{jt} \\ & + \beta_4 \ln(Popdens_{jt}) + \beta_5 PolityIV_j + \beta_6 Richter_{ijt} \\ & + \beta_7 Latitude_j + \beta_8 Earthqu.risk_j + \beta_9 v_c + \varepsilon_{ijct} \end{aligned}$$

	OLS I	OLS II	IV	ZINB
<i>Ln (DAC_{j,t-1})</i>		0.078* (0.044)	0.073* (0.039)	0.028* (0.017)
<i>Ln (GDP_{j,t})</i>	- 0.624*** (0.171)	- 0.567*** (0.182)	- 0.782** (0.266)	- 0.267*** (0.074)
<i>GINI_j</i>	0.046* (0.026)	0.046* (0.027)	0.041* (0.021)	0.018* (0.009)
<i>Ln (Pop_{j,t})</i>	- 0.050 (0.140)	- 0.104 (0.161)	- 0.125 (0.185)	- 0.065 (0.071)
<i>Polity IV_j</i>	0.002 (0.011)	- 0.002 (0.011)	- 0.000 (0.015)	- 0.000 (0.003)
<i>Richter_{i,j,t}</i>	1.512*** (0.235)	1.560*** (0.260)	1.453*** (0.249)	0.567*** (0.077)
<i>Earthquake risk_j</i>	- 0.119 (0.101)	- 0.135 (0.100)	- 0.143* (0.078)	- 0.063 (0.042)
<i>Latitude_j</i>	0.017** (0.007)	0.026** (0.182)	0.024*** (0.009)	0.011** (0.005)
Continent FE	Yes	Yes	Yes	Yes
Time trend	Yes	Yes	Yes	Yes
Constant	Yes	Yes	Yes	Yes
Centered R ² /R ²	0.308	0.310	0.278	
Obs.	317	296	250	296
Hausman –Test		0.989		
Hansen’s J Stat			0.632	
Vuong Stat				3.17**

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- Increases in the level of past foreign aid imply higher death tolls resulting from major earthquakes
- Redesign of foreign aid?
 - Unrestricted transfers induce people to shirk responsibilities (Coate 1995)
 - In-kind / restricted transfers cause dead-weight-losses due to a lack of information about recipients' preferences (Jepma 1991)
 - Possible solution: ex-ante in-kind transfers for catastrophes

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- Extend the results to other types of natural disasters
- Account for the role of political variables
- Account for country characteristics, that could make aid more predictable (type of aid, type of donor)

Thank you for your attention!

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