

# KEEPING FRIENDS CLOSE, BUT ENEMIES CLOSER: FOREIGN AID RESPONSES TO NATURAL DISASTERS

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## puzzle

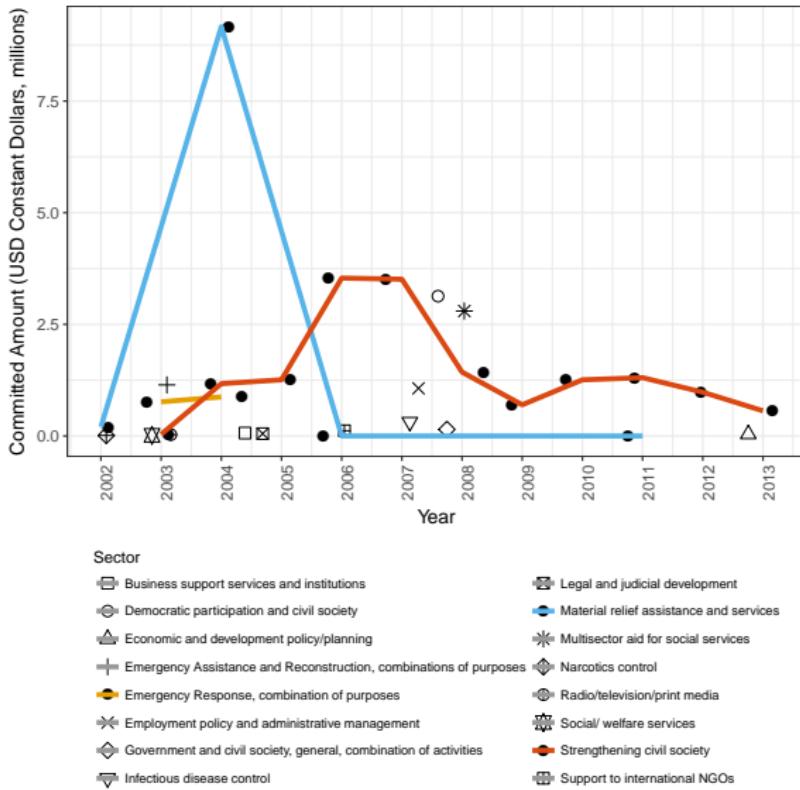
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How do we explain foreign aid disbursements in the wake of natural disasters given the existing literature which finds that aid is given for strategic purposes?

## motivating example



## motivating example



# questions

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What drives the allocation of ....

aid targeted toward providing short-term relief in the wake of a natural disaster?

aid targeted toward long-term development goals in the wake of a natural disaster?

## drivers of short-term (humanitarian) aid

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*H1B: Donors who are strategic opponents of the recipient are more likely than strategic allies to be sensitive to the humanizing effect of natural disasters and consequently, are likely to send more development aid.*

## drivers of short-term (humanitarian) aid

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## drivers of long-term (civil society) aid

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*H2A: Natural disasters present an opportune window for donors to exert influence over recipients who are their strategic opponents and as such, donors are more likely to send civil society aid to their strategic opponents.*

## drivers of long-term (development) aid

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*H2B: Natural disasters have a long-term humanizing effect on their strategic opponents and as such, donors are more likely to send development aid to their strategic opponents.*

## extant approaches to modeling strategic interest

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Within this literature strategic interest takes on a variety of operationalizations, most commonly:

Alliances (e.g., Schraeder et al. 1998)

UN Voting Scores (e.g., Dreher and Fuchs 2015)

Common IGO Membership (e.g., Bermeo 2008)

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Alesina and Dollar (2000):

*unfortunately the measurement of what a “strategic interest” is varies from study to study and is occasionally tautological*

## a new measure of strategic relationships

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Knowing something about the relationship between  $i$  and  $j$  as well as between  $i$  and  $k$  may reveal something about the relationship between  $i$  and  $k$

## latent space analysis

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$$\theta_{i,j} = a_i + b_j + \gamma_{i,j} + z_i' z_j$$

where  $\theta_{i,j}$  is the dyadic variable of interest

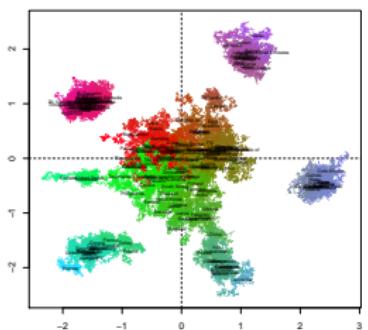
$a_i$  estimates sender effects

$b_j$  estimates receiver effects

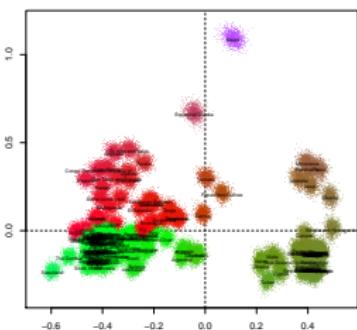
$z_i' z_j$  is the bilinear effect which estimates the latent space

We estimate the model via Gibbs sampling using the full conditionals of the parameters

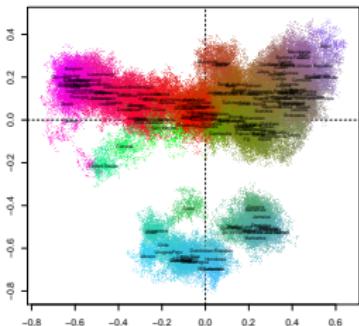
# latent space of political strategic interest measure: 2005



Alliances



UN voting



## dimension reduction

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Next we estimate the euclidean distance between the posterior positions of every country for every year

## dimension reduction

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We estimate a PCA for each year separately and use the first principal component for each year as our measure of strategic interest

## dependent variable & sample

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Data for foreign aid flows taken from the AidData project (Tierny et al. 2001).

We use the country level aggregated version of this database to create a directed-dyadic dataset of total aid dollars committed

We focus on the 18 most active senders and 167 receivers of aid flows from 1975 to 2005

# measuring natural disasters

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Number of Natural Disasters (EM-DAT 2009):

# measuring natural disasters

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Number of Natural Disasters (EM-DAT 2009):

Ten or more people reported killed

A hundred or more people reported affected

Declaration of a state of emergency

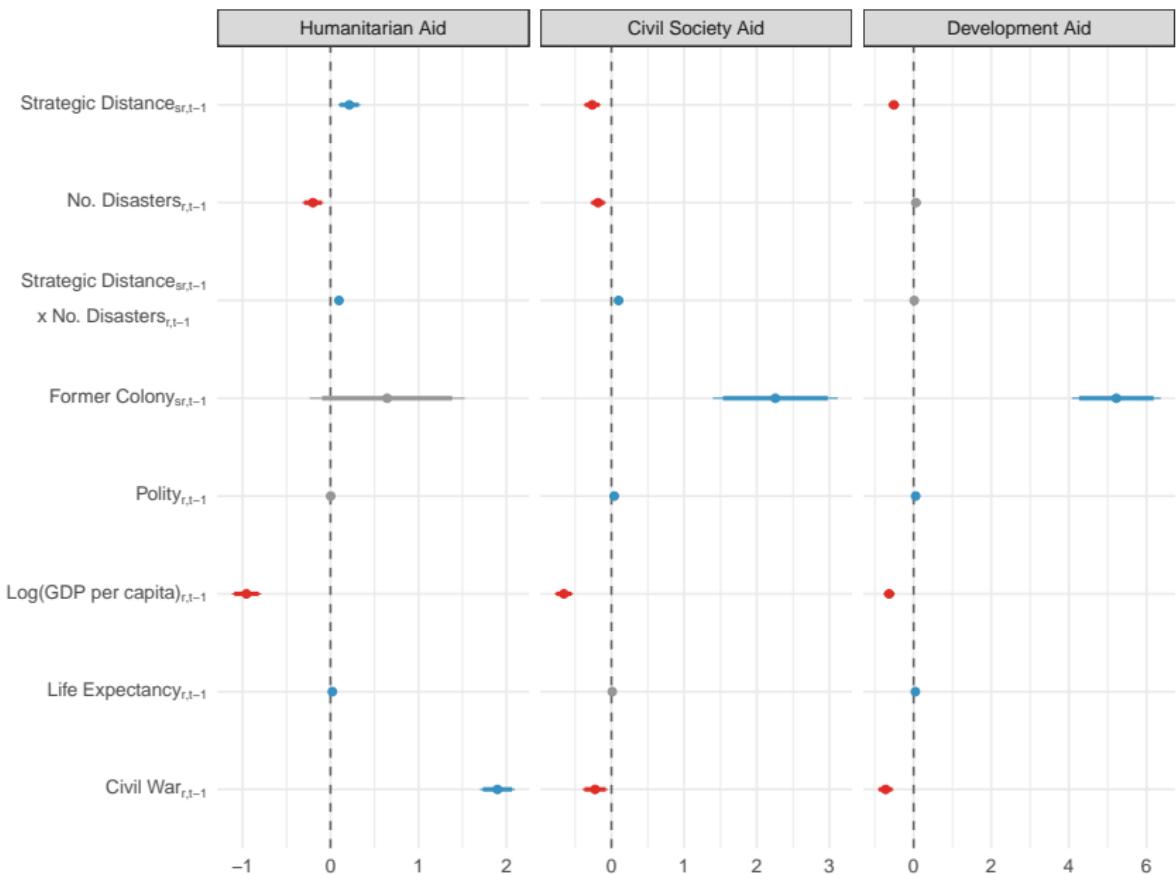
Call for international assistance

## aid model specification

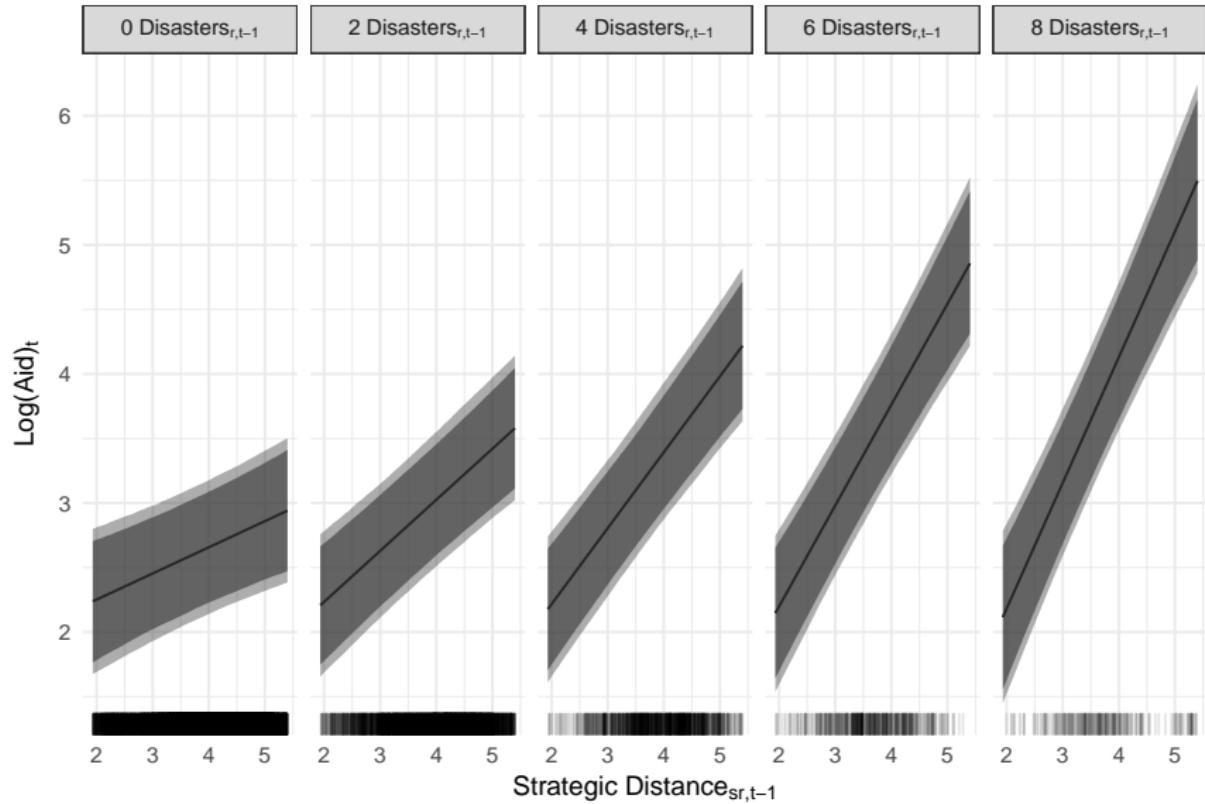
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$$\begin{aligned} \text{Log}(Aid)_{sr,t} = & \beta_1(\text{Pol. Strat. Distance}_{sr,t-1}) \\ & + \beta_2(\text{Colony}_{sr,t-1}) + \beta_3(\text{Polity}_{r,t-1}) \\ & + \beta_4 \text{Log}(\text{GDP per capita}_{r,t-1}) + \beta_5(\text{Life Expect}_{r,t-1}) \\ & + \beta_6(\text{No. Disasters}_{r,t-1}) + \beta_7(\text{Civil War}_{r,t-1}) \\ & + \beta_8(\text{Pol. Strat. Interest}_{sr,t-1} \times \text{No. Disasters}_{r,t-1}) \end{aligned}$$

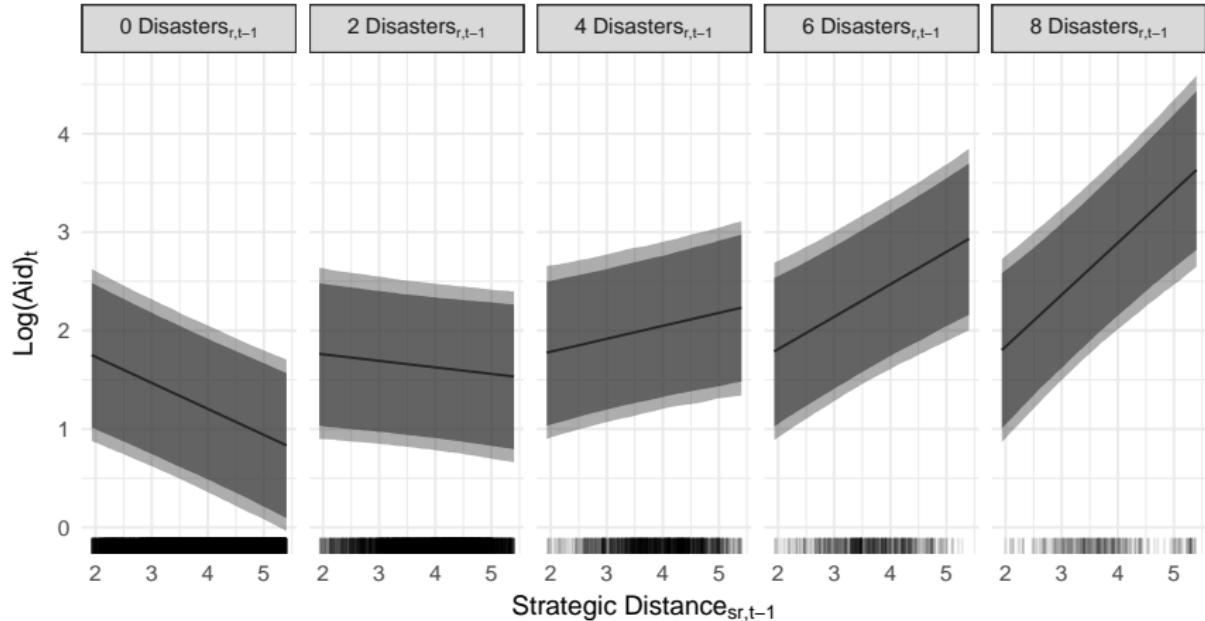
# incorporate interaction



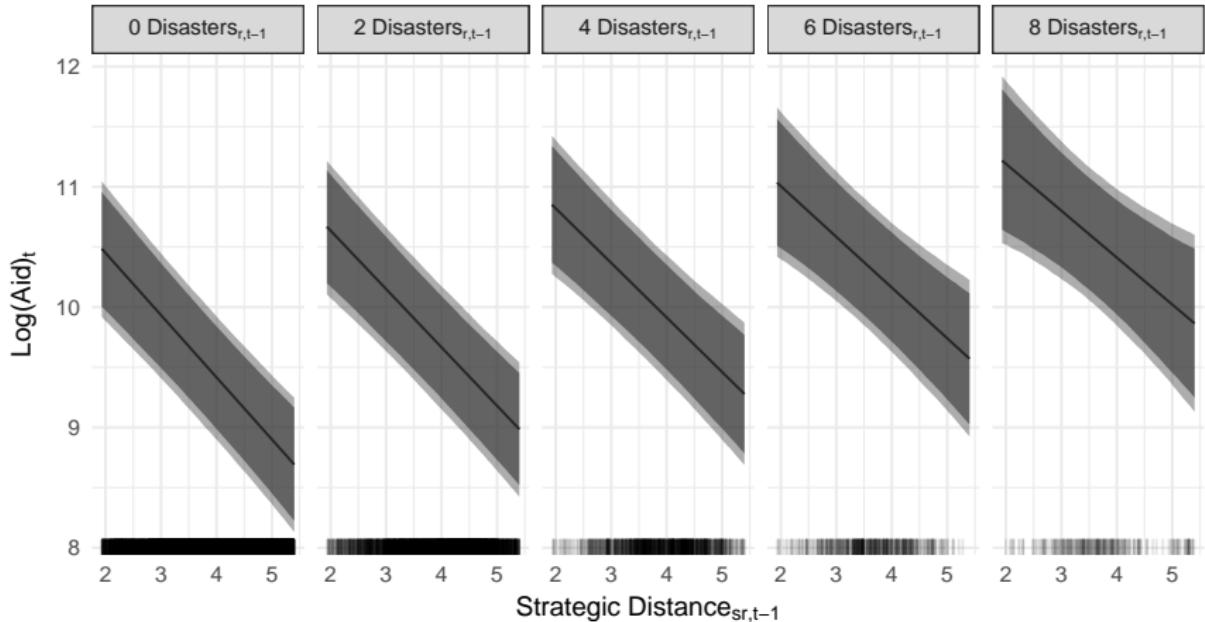
## Humanitarian Aid



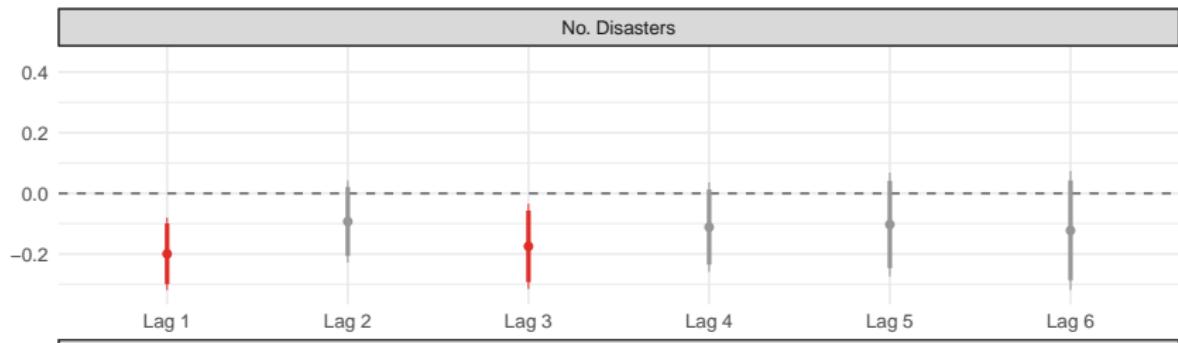
## Civil Society Aid



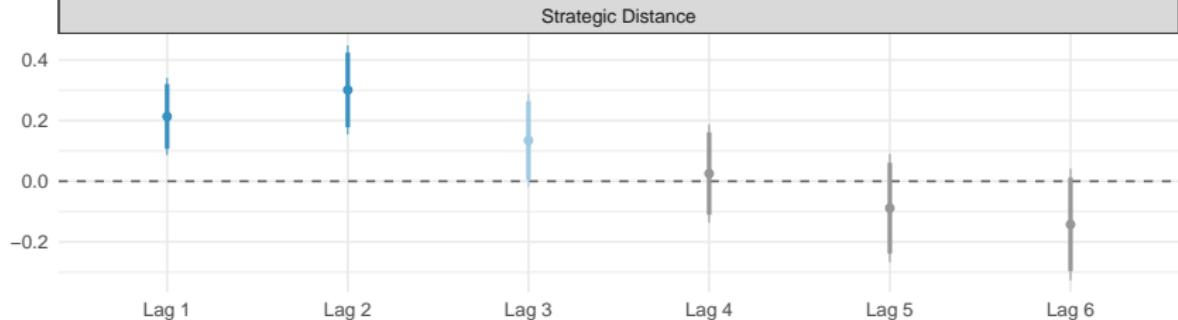
## Development Aid



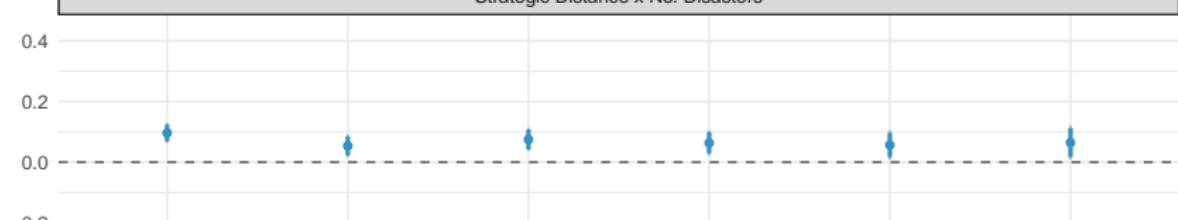
## Humanitarian Aid



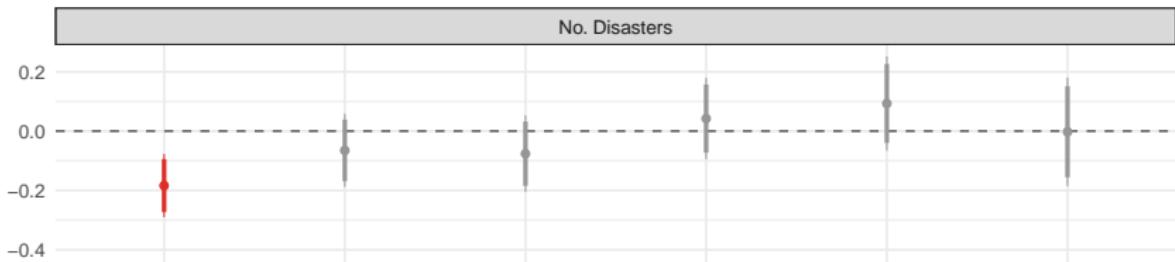
## Strategic Distance



## Strategic Distance x No. Disasters



## Civil Society Aid



Lag 1

Lag 2

Lag 3

Lag 4

Lag 5

Lag 6

## Strategic Distance



Lag 1

Lag 2

Lag 3

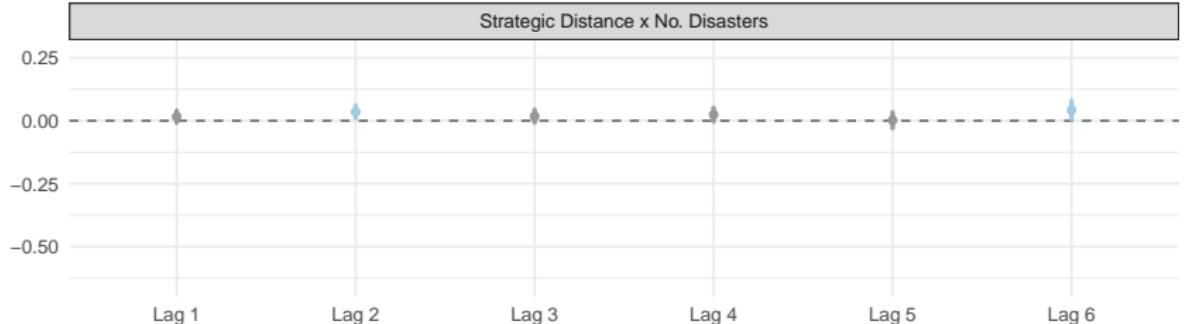
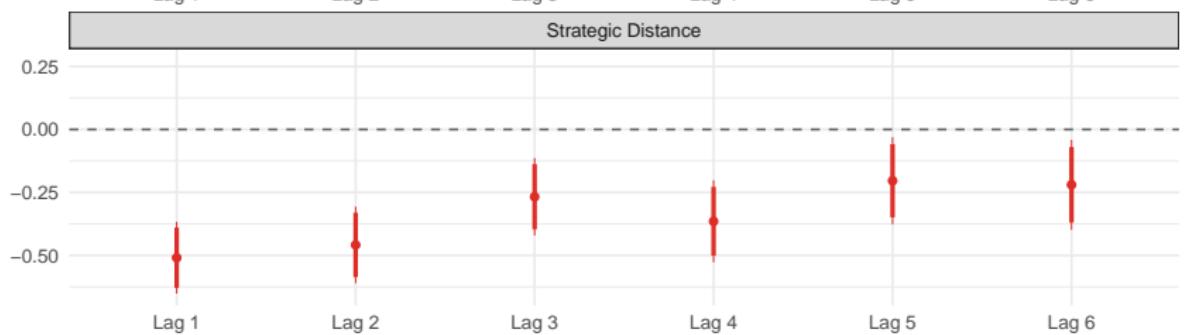
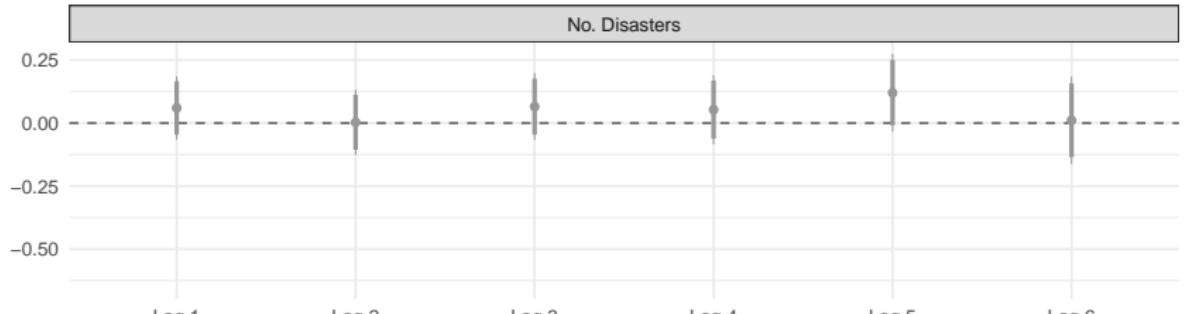
Lag 4

Lag 5

Lag 6

## Strategic Distance x No. Disasters





## contribution

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A novel measure of strategic interest that better captures the decision making process behind foreign aid

A more nuanced picture of how countries disperse aid allocations

NEXT STEPS?

# appendix

