

# Foreign Aid Preferences and Perceptions in Donor Countries

Daniel Kaufmann  
Natural Resource Governance Institute  
Brookings Institution  
dkaufmann@brookings.org

Eoin F. McGuirk  
Yale University  
eoin.mcguirk@yale.edu

Pedro C. Vicente  
Nova School of Business and Economics  
Universidade Nova de Lisboa  
pedro.vicente@novasbe.pt

## Abstract

We present original survey data on preferences for foreign aid in 24 donor countries from 2005 to 2008. On publicly-funded foreign aid (Official Development Assistance, or ODA), we find patterns that are consistent with a standard model of democratic policy formation, in which donations are treated as a pure public good. Controlling for perceptions of current ODA, we show that individual preferences for ODA are (i) negatively correlated with relative income within a country-year; and (ii) positively correlated with inequality at the country level. We extend this logic to explain variation in the gap between *desired aid* and actual ODA, arguing that lobbying by high-income special interest groups can result in an outcome that is lower the median voter's preference. Consistent with this, we observe that ODA is significantly lower where policy-makers are more susceptible to lobbying. Finally, we present a novel test of competing "crowding out" hypotheses. Self-reported private aid donations are negatively correlated with actual ODA, and positively correlated with perceived ODA. This finding is consistent with an emerging argument in the literature,

whereby ODA crowds out private aid by enabling charities to forego fundraising activities and crowds in private aid through a signaling channel.

JEL: F35; H40; D72

Keywords: Foreign Aid; Democracy; Political Economy; Public Goods.

# 1 Introduction

In 2015, aid flows from Development Assistance Committee (DAC) donor countries totalled \$146 billion—an unprecedented high.<sup>1</sup> Yet, despite the emergence of a large literature on the effectiveness of foreign aid in recipient countries, few studies have analysed attitudes to foreign aid from the perspective of donor-country citizens. In this paper, we take a first look at preferences for Official Development Assistance (ODA) using unique micro-level data taken from the Voice of The People survey commissioned by the World Bank Institute and collected by Gallup International. We focus on the preferences of just under 90,000 individuals in 24 donor countries surveyed in each of the four years from 2005 to 2008.

The dataset allows us to present novel facts on four related issues: within-country variation in ODA preferences; cross-country variation in ODA preferences; cross-country variation in the gap between ODA preferences and actual ODA; and the extent to which ODA crowds out private aid donations.

We begin with a standard political economy model of policy formation in a democracy. Treating ODA as a pure public good, we argue that an individual’s relative income within a country-year will negatively determine her ODA preferences. This is because, in a proportional tax system, the marginal cost of a tax-funded public good is higher for those closer to the top of the income distribution. We find correlational evidence in support of this proposition in the data: those in the top income quintile favour ODA (as a share of GNI) that is 0.13 percentage points lower than the preferred share for individuals in the bottom 40% of the income distribution. Crucially, the data allow us to control for respondents’ perceptions of current ODA levels, which alone explains over 15% of variation in desired aid. This repre-

---

<sup>1</sup>DAC aid statistics are available on the OECD website at <http://www.oecd.org/dac/stats/idsonline.htm>

sents a critical advantage over previous studies in the literature: it reveals not only that individuals measure ODA with a non-trivial amount of error, but that the error component is negatively correlated with income. Failure to include perceptions as a control variable would therefore bias our estimate towards supporting the model's prediction. We also show that the estimate is robust to the inclusion of a variety of interacted fixed effects for categories of education, employment, age, gender and religion.

A corollary of this simple model is that preferences for ODA (henceforth "desired aid") will be negatively determined by the ratio of the mean to the median income level within a country; in other words, that inequality leads citizens to demand *more* foreign aid outlays. We observe patterns in the data that are consistent with this: *desired aid* is indeed higher in countries that are less equitable, as measured either by the mean:median income ratio or by the Gini coefficient. This seems to be at odds with the fact that Nordic countries, which are among the most equitable in the world, tend to donate more ODA as a share of GNI than other OECD countries.

What can explain this puzzle? We propose one explanation rooted in a canonical model of special interest politics: if, as we show, higher income voters prefer lower ODA rates, then the gap between *desired aid* and the realized ODA will be larger in countries where policy choices are susceptible to monetary influences, such as campaign donations or bribes. In effect, these distortions from high income special interests create a wedge between citizen preferences and eventual policy choices on ODA. We find suggestive evidence consistent with this hypothesis: conditional on a battery of controls, ODA is significantly lower in OECD countries where business managers report higher levels of lobbying activities, as measured by the Global Competitiveness Report of The World Economic Forum. The magnitude of the correlation is consistent across multiple measures of private influence on public policy.

Finally, we analyse the mechanisms through which ODA expenditure “crowds out” private foreign aid donations by citizens. The classical argument states that increased government expenditure on foreign aid reduces private donations, as people optimally withdraw their private contributions once they are obliged to donate to charities through involuntary taxes (Warr, 1982, Bergstrom et al., 1986). This is known as *direct crowding out*. However, more recent studies by Andreoni and Payne (2011a) and Name-Correa and Yildirim (2012) propose two additional pathways linking government grants to private charitable donations: an *indirect crowding out* channel, by which government grants allow charities to forego fundraising activities, thereby reducing private donations; and a *direct crowding in* channel, through which government grants to charities signal their quality to citizens, who are more likely to donate as a consequence. Using data on local charitable donations in the U.S., Andreoni and Payne estimate an overall crowding out coefficient of around 62%, owing to a combination of indirect crowding out and direct (net) crowding in effects.

The nature of our dataset allows for a novel test of these channels in the context of foreign aid. Estimating the impact of ODA expenditure alone on private donations does not permit the researcher to untangle the direct and indirect effects. By additionally including in the regression a measure of *perceived* ODA, however, we argue that it is possible to separate out the direct effects, which operate through an individual’s beliefs about current ODA expenditure, from the indirect effects, which operate through the negative impact of actual ODA expenditure on charity fundraising. We apply this method and find that a 1 percentage point increase in actual ODA is associated with a 0.64 percentage point decrease in self-reported private aid, suggesting an indirect crowding out effect, whereas the same increase in perceived ODA is associated with a 0.09 percentage point *increase* in self-reported

private aid, suggesting a direct crowding in effect. The findings are robust to instrumenting actual ODA with measures of lobbying activities and population (which are jointly significant predictors of ODA and arguably independent of the error term), and to including a range of interacted individual-level fixed effects, the *desired aid* variable used above, and various country-level indicators of economic activity and governance. The results corroborate emerging evidence that government crowding out is incomplete, and that it operates through reduced fundraising activities by charitable organisations in receipt of public funding rather than through the direct channel.

While the debate on the effectiveness of foreign aid is well documented, our study contributes to a relatively thin literature on the drivers of aid supply. Earlier studies tended to centre on the macro-level determinants of bilateral aid flows. Dudley and Montmarquette (1976) find that politically and economically strategic links appear to be the main drivers of aid. McKinley and Little (1979) broadly support this view, showing that US aid from 1960 to 1970 was more motivated by strategic interests than poverty. Maizels and Nissanke (1984) conduct a more nuanced test that reveals the “recipient-need” rationale for multilateral aid allocations and the established “donor-interest” rationale for bilateral aid. Alesina and Dollar (2000) and Collier and Dollar (2002) reinforce the main thrust of the literature: political and strategic concerns mainly determine bilateral aid, and allocations would be more productive if poverty and policy played a larger role.<sup>2</sup>

---

<sup>2</sup>Multilateral institutions are not entirely immune from the political interests of their primary donors: Kilby (2009) finds that World Bank structural adjustment loan disbursements carry less conditionality for countries that share US voting behaviour at the United Nations; Dreher and Jensen (2007) find a comparable result for the case of IMF loans; and, in a similar vein, Dreher et al. (2009) identify a robust link between temporary UN Security Council membership and the number of World Bank projects allocated to a country. In addition to this broad consensus, a number of auxiliary findings have emerged: Nordic countries are more likely than other donors to allocate aid on the basis of poverty (Alesina and Dollar, 2000); less populated countries receive more aid per capita (Trumbull and Wall, 1994; Burnside and Dollar, 2000); Cold War-era political support influenced donations (Lundborg, 1998), and its end precipitated a general switch from

Despite the convergence of these macro-level studies of bilateral aid supply by the early 2000s, few papers have since explored the individual preferences of donor-country citizens for foreign aid. Paxton and Knack (2012) look at correlates of support for aid increases using WVS data together with an earlier version of Gallup International’s Voice of The People survey. They identify correlations with largely attitudinal variables such as religiosity and positions on poverty, global affairs and institutions. Chong and Gradstein (2008) use World Values Survey (WVS) data to show that, at the individual level, relative income is positively associated with preferences for foreign aid. At the country level, they find that income inequality negatively determines actual ODA disbursements.

Our analysis builds upon this literature. Firstly, our unique dataset provides a richer foundation for empirical analysis. Whereas Chong and Gradstein (2008) have two waves of WVS data (1995-1997 and 1999-2000) consisting of 10,000 observations, and Paxton and Knack (2012) have a single wave of WVS data (5,693 observations in nine donor countries) and a single wave of Gallup data (6,194 observations in 17 countries), we avail of a more recent four-wave dataset containing almost 90,000 respondents from 24 donor countries. This allows us to flexibly control for country-year fixed-effects in our individual-level regressions. Second, we avail of a survey question which measures respondents’ perceptions of current ODA expenditure—a covariate that is typically proxied by actual levels of ODA in prior studies, an approach we show to be extremely unsuitable due to respondents’ substantial misperceptions of aid expenditure. Moreover, our measures of aid preferences allow for variation on the intensive margin, rather than on the extensive margin only. Third, we propose an explanation for the discrepancy between our findings on the effects of

---

donor-interest to recipient-need models of allocation (Dollar and Levin, 2006); and France and the USA remain the most politically-motivated donors (Alesina and Dollar, 2000; Dollar and Levin, 2006), especially, in the latter’s case, since the onset of the War on Terror (Fleck and Kilby, 2010).

inequality on *desired aid* versus prior findings on the effects of inequality on actual ODA, namely that special interest lobbying is a potential omitted variable. This is the central thesis of Lancaster (2007), who discusses in detail the primacy of donor-country political-economy factors in the allocation of foreign aid. The author argues that the impact of popular preferences on foreign aid expenditure is tempered by the role of special interest lobbying. We offer empirical support for this argument. Finally, we separate the direct and indirect effects of government ODA expenditure on private contributions through the use of our *perceived aid* variable. To our knowledge, this is the first test of this nature in the context of foreign aid.

Our paper is structured as follows: in Section 2 we describe our *Voice of The People* data on attitudes to aid. We then propose a theory of support for foreign aid in Section 3, and empirically analyse its propositions in Section 4. We extend the analysis in Section 5 by examining country-level correlates of aid. In Section 6, we turn to our analysis of crowding out, before concluding in Section 7.

## 2 Data

We restrict the sample to the 24 donor countries in which the survey was conducted, leaving 89,718 observations over the four years from 2005 to 2008. Our main focus in the dataset concerns individual preferences for the percentage of national income devoted to overseas aid. Respondents were asked two questions:

- (i) What share of national income does your country actually give in foreign aid to help development / poverty alleviation in other countries?
- (ii) What percentage in your view should it give?

Respondents could choose one of 11 categories ranging in increasing intervals from 0 to higher than 25%. We take midpoints for all categories other than the minimum (0) and maximum (25) values. The responses are labelled ‘perceived aid’



and ‘desired aid’ respectively.

Table 1 shows the sample size for each survey round, together with scores for *desired aid*, *perceived aid* and country-level ‘actual aid’, measured as the ODA share of Gross National Income (GNI), averaged over all rounds for each country. Figure 1 presents a visual accompaniment to the data. Some notable patterns emerge. Citizens of donor countries are prepared to support an attribution of 3.14% of GNI towards foreign aid—the average level actually attributed is 0.37%. However, at 2.65% of national income, respondents’ perceptions of official aid expenditure is around seven times higher than the actual level. Nevertheless, on average, citizens of DAC countries support an increase in foreign aid over current levels.

Second, support for aid decreased over the four years of the survey. In 2005, *desired aid* was over 1 percentage point higher than perceived levels; in 2008 they were almost identical. This effect is consistent across the distribution: those who favour no transfers of aid rose from 5.26% of the sample in 2005 to 9.41% in 2008; those who believe aid should not exceed 0.2% of GNI rose from 15.51% to 23.51%; and highly pro-aid respondents—those who favour transfers of over 1%—decreased from 58.62% to 50.78%. This trend is robust to controls for many economic and other factors, perhaps reflecting the high-profile pro-aid public awareness campaign designed to influence the G8 meetings at Gleneagles, Scotland, in the summer of 2005. Actual aid levels increased slightly as a percentage of GNI during this decline in support.

Third, there is considerable variation between countries in *desired aid*, *perceived aid* and actual aid. Nordic governments appear to be the most generous in terms of ODA expenditure: Sweden, Norway and Denmark, along with Luxembourg and the Netherlands, all allocate over 0.8% of GNI to foreign aid on average. At the other end, Korea, Poland, the Czech Republic, Turkey and the USA are the only

countries in the sample to donate less than a fifth of one per cent. That fact seems not to affect citizens' perceptions of their own government's ODA expenditure, however: US citizens believe they spend over 40 times more than they actually do on foreign aid. We see this graphically in Figure 2, where in the top two panels we show country means of *desired aid* and 'aid illusion', measured as the ratio of *perceived aid* to actual aid. Additionally, four of the five countries with the lowest *aid illusion* scores—Sweden, Norway, Denmark and Luxembourg—are also four of the five largest donors. Irish citizens, meanwhile, are the most generous in terms of desired aid, with average preferences slightly higher than 6% of GNI. Germany and the UK are the only other countries to have average preferences of over 5%. The only countries where average *desired aid* is at 2% or lower are Finland, the Czech Republic, Korea and Austria.

Clearly, statistics on *desired aid* are misleading in isolation. Panel 2 of Figure 2 tells us that *aid illusion* varies significantly from country to country. Without taking this into account, we might erroneously conclude that certain citizens desire lower ODA expenditure when in fact they simply have a more accurate grasp of national economic statistics. In order to overcome this bias, we construct a weighted measure of support for aid that we call the Democratic Aid Level Preference Index (DALPI), defined as:

$$DALPI_c = DA_c^{Med} * \frac{ODA_c}{PerA_c}$$

where  $DA_c^{Med}$  is the median *desired aid* as a percentage of GNI in country  $c$ ;  $PerA_c$  is *perceived aid*, and  $ODA_c$  is actual aid. The DALPI allows us to order country-level preferences for foreign aid while taking aid illusion into account. We take the median value of *desired aid* in order to reflect the democratic preferences of an electorate in the standard median voter theorem setting. The revised order

is presented in Panel 3, where we see Sweden, Denmark, Norway, Luxembourg and Iceland as the major illusion-adjusted foreign aid supporters in the sample, whereas Poland, Portugal, Korea, USA and the Czech Republic are the lowest supporters.

### 3 Support for Foreign Aid

We use a simple model of redistributive politics to explain individual support for ODA, building upon Romer (1975), Roberts (1977), and Meltzer and Richard (1981), as summarized in Acemoglu and Robinson (2006). We follow the literature on philanthropy in assuming altruistic utility functions, in which citizens derive utility from aid donated to recipients in poor countries. Kolm (1969) and Hochman and Rogers (1969) are credited with noting that the object of altruism can be considered a public good. In this application, the utility derived from foreign aid donations is both non-rivalrous and non-excludable.<sup>3</sup>

With this in mind, we consider a country with  $n$  citizens, where each citizen  $i = 1, 2, \dots, n$  has income  $y_i$ , and

$$\bar{y} = \frac{1}{n} \sum_{i=1}^n y_i.$$

The political system of this economy determines a tax rate  $\tau \in [0, 1]$  proportional to income, the proceeds of which are distributed as foreign aid  $A$  to other countries. We assume it is costly to raise taxes: an aggregate cost from taxation distortions,  $C(\tau)n\bar{y}$ , arises when the tax rate is  $\tau$ . The function  $C(\cdot)$  has the following properties:  $C'(\cdot) > 0$ , costs are increasing in the level of taxation;  $C''(\cdot) > 0$ , costs are strictly convex, and  $C'(0) = 0$  and  $C'(1) = 1$ .

The government then faces the following budget constraint:

---

<sup>3</sup>Chong and Gradstein (2008) and Schweinberger and Lahiri (2006) follow a similar approach.

$$A = \sum_{i=1}^n \tau y_i - C(\tau)n\bar{y} = (\tau - C(\tau))n\bar{y}.$$

All individuals in this economy maximise the utility function  $u(\hat{y}_i, A)$ , where  $\hat{y}_i$  is post-tax income  $(1 - \tau)y_i$ , and  $u_1(\cdot), u_2(\cdot) > 0; u$ . We can express indirect utility as:

$$V(y_i | \tau) = u[(1 - \tau)y_i, (\tau - C(\tau))n\bar{y}].$$

The preferred tax rate of person  $i$  can be derived easily from maximizing unconstrained indirect utility, given that, under the properties of functions  $u$  and  $C$ , function  $V$  is strictly concave and twice continuously differentiable. The first order conditions are:

$$-u_i(\cdot)y_i + u_2(\cdot)(1 - C'(\tau_i))n\bar{y} = 0 \quad (1)$$

if  $\tau_i > 0$ , and

$$-u_i(\cdot)y_i + u_2(\cdot)(1 - C'(\tau_i))n\bar{y} \leq 0 \quad (2)$$

if  $\tau_i = 0$ .

**Proposition 1** *The individually optimal tax rate function  $\tau(y_i)$  is decreasing in  $y_i$ .*

Using the implicit function theorem for the case of  $\tau_i > 0$ , we know  $\tau'(y_i)$  exists and is given by  $\tau'(y_i) = -\frac{u_1(\cdot)}{u_2(\cdot)C''(\tau_i)\bar{y}}$ . From the properties of functions  $u$  and  $C$ , we can conclude that this derivative is strictly negative.

This explanation for the formation of foreign aid preferences is an intuitive one: in a proportional tax system, the individually optimal public expenditure on a public

good will be lower amongst those who are required to contribute more to its funding, all else equal. It follows that higher-income citizens will prefer lower foreign aid expenditure  $A$ .

The comparative statics of this condition also reveal how the income distribution within a country will affect support for aid. Rearranging equation (1), we have:

$$\frac{y_i}{\bar{y}} = \frac{(1 - C'(\tau_i))u_2(\cdot)n}{u_i(\cdot)} \quad (3)$$

If an individual's income  $y_i$  decreases relative to the mean income  $\bar{y}$ , then her ideal tax rate  $\tau_i$  increases. It follows that the median voter's ideal level of aid  $A(\tau_{med})$  is therefore increasing in the ratio of the mean to the median income level  $\frac{\bar{y}}{y_{med}}$ . In other words, greater inequality should lead to more citizens supporting an increase in foreign aid.

## 4 Empirical analysis

In this section, we examine the empirical support for the main implication of the model: that, within a country, higher relative income leads to lower support for foreign aid. In the absence of a source of exogenous variation in income, we are limited to a descriptive analysis of Proposition 1. However, there are steps we can take to improve the robustness of a typical estimation method of the following form:

$$desired\ aid_{ict} = \alpha + \beta y_{ict} + X_{ict}\gamma + c + t + e_{ict} \quad (4)$$

where the outcome is *desired aid* for individual  $i$  in country  $c$  and year  $t$ ;  $y$  is self-reported income, measured subjectively and coded relative to individuals in country  $c$  and year  $t$  from 1 (bottom two quintiles) to 3 (richest quintile);<sup>4</sup>  $X$  is

---

<sup>4</sup>These categories are a feature of the dataset, and not of the authors' discretion.

a vector of individual covariates that includes fixed effects for categories of age, gender, education, employment status, and religion; and c and t control for country and year fixed effects respectively.

Proposition 1 predicts that  $\beta < 0$ . An obvious first order concern is that  $y_{ict}$  is correlated with  $e_{ict}$ , which would result in a biased estimate  $\hat{\beta}$ . One way in which this could lead us to corroborate falsely the proposition is through non-classical measurement error. In Section 2, we demonstrated that *perceived aid* varied significantly within and across countries in a manner that could not be explained readily by variation in actual aid. If the outcome variable contains a nonrandom measurement error component, and if this component is negatively correlated with relative income (which is likely, for example, if higher-income citizens are more familiar with national economic statistics), then  $\hat{\beta}$  is biased downward. To address this, we include *perceived aid* as a covariate, which controls flexibly for the common measurement error component in both variables.<sup>5</sup>

Another way in which this might lead to a biased estimate is if high income individuals are more sympathetic to the cause of international development. This could be due to, for example, more exposure to global affairs, or perhaps more experience traveling abroad. While these are legitimate concerns, we take some comfort from the fact that this form of omitted variable bias would lead to a higher estimated  $\hat{\beta}$ , thereby potentially contributing to a false rejection of the proposition.

Finally, we follow Chen (2013) by including a restrictive set of interacted categorical fixed effects for country  $\times$  year, age  $\times$  gender, education  $\times$  employment, and, in some specifications, all interactions between all groups. Our main specification is

---

<sup>5</sup>To see this, assume that

$$e_{ict} = u_{ict} + v_{ict},$$

where  $v$  is i.i.d.,  $u$  is measurement error due to one's understanding of foreign aid policy or national economic statistics more generally,  $cov(y, u) \neq 0$  and  $cov(y, v) = 0$ . If the *perceived aid* variable is measured with the same nonrandom error component  $u_{ict}$ , then including it in the estimation specification removes the bias due to  $cov(y, u)$ .

therefore:

$$desired\ aid_{ict} = \alpha_{ict} + \beta y_{ict} + \zeta perceived\ aid_{ict} + \gamma_{ict} \times \kappa_{ict} + \phi_{ict} \times \omega_{ict} + c \times t + e_{ict} \quad (5)$$

where  $\gamma_{ict}$  represents fixed effects for age categories,  $\kappa_{ict}$  for gender categories,  $\phi_{ict}$  for education categories, and  $\omega_{ict}$  for employment categories. In all specifications, standard errors are clustered at the level of a country-year-income group.

The results are presented in Table 2. In column (1), we include only country  $\times$  year fixed effects (96 categories), and find that *desired aid* for those in the third and fourth income quintiles is 0.28 percentage points (standard error = 0.06) lower than for those in the bottom two quintiles. For citizens in the top quintile, it is 0.51 percentage points (s.e. = 0.08) lower than for those in the bottom two quintiles. In column (2), we add the *perceived aid* covariate. If, as we describe above, *perceived aid* and *desired aid* share a common error component, and if this error is negatively correlated with income, then we should see a positive  $\zeta$  coefficient and a reduction in the absolute magnitude of the  $\beta$  coefficient. This is indeed the case: those who perceive foreign aid to be one percentage point higher (controlling for actual aid through the country  $\times$  year interaction), have on average a *desired aid* preference that is 0.41 (s.e. = 0.02) higher. The coefficients on income for the high and middle groups move to -0.17 (s.e. = 0.07) and -0.11 (s.e. = 0.05) respectively. Adding the *perceived aid* variable decreases the sample size from 52,765 to 44,434 due to missing survey responses.

In columns (3) and (4), we add 8 fixed effects for age  $\times$  gender and 12 fixed effects for education  $\times$  employment, and in column (5) we include the full set of 5424 interacted fixed effects, as well with 10 fixed effects for religion. In all cases, the coefficient for the high income groups remains negative and significant at around

-0.14 (s.e. = 0.07).<sup>6</sup>

Taken together, these results show that high-income individuals prefer lower levels of foreign aid relative to the preferences of low income individuals. The statistic association is robust to controls for their perceived measure of existing aid expenditure and a restrictive set of over 5,000 fixed effects.

#### 4.1 Extensions: inequality and desired aid

A corollary of the main theoretical proposition is that average *desired aid* within a country will increase with the ratio of the mean income to the median income. This is because, as this ratio rises, more people will have incomes below the mean level, thereby increasing overall support for higher taxation and more foreign aid expenditures. A marginal increase in tax elicits large contributions from those earning very high incomes in an unequal economy, and so the median income citizen is more likely to support that tax increase than the median income citizen in an economy of the same size but with a flatter distribution of income (i.e. where  $y_{median}$  is higher). In effect, the implication is that inequality leads to more support for foreign aid.

We examine this corollary by running the following specification:

$$\begin{aligned} \text{desired aid}_{ict} = & \alpha_{ict} + \delta I_{cc} + \beta y_{ict} + \zeta \text{perceived aid}_{ict} + \gamma_{ict} \times \kappa_{ict} \\ & + \phi_{ict} \times \omega_{ict} + \varphi Y_{ct} + \mathbf{K}_{ct} \Theta + \mathbf{G}_{ct} \Omega + t + e_{ict}, \quad (6) \end{aligned}$$

where  $I_c$  is inequality, measured as the ratio of the mean to the median income (both taken from the OECD)<sup>7</sup> in country  $c$ ;  $Y_{ct}$  is the logarithm of per capita GDP

<sup>6</sup>In the Appendix Table A1, we show that the main effects are statistically indistinguishable from zero when we treat the outcome variable as ordinal rather than cardinal. In column (1) we run an ordered probit specification, and in column (2) we run a probit specification where the outcome variable is  $1(\text{desired aid} > \text{perceived aid})$ . This suggests that the information discarded in these transformations may be critical for identifying the statistical relationship between relative income and desired aid.

<sup>7</sup>Data on real mean and real median incomes are available at the Income Distribution > In-



in 2000 US dollars;  $K_{ct}$  is a vector of standard country-level controls that contains trade openness, growth and the logarithms of population and size, all of which are taken from the *World Development Indicators* at the World Bank;  $G_{ct}$  is a vector of the six Worldwide Governance Indicator variables: *Voice and Accountability*, *Stability*, *Government Effectiveness*, *Regulatory Quality*, *Rule of Law* and *Control of Corruption* (Kaufmann et al., 2010). The theory predicts that  $\delta$  is greater than zero.

As the OECD provides unique ‘mid 2000s’ values of mean and median income for each country, we cannot include country dummies. This raises additional concerns about likely omitted variable bias. For example, a country’s ‘taste’ for redistribution may affect both its level of domestic equality as well as its citizens’ preferences for foreign aid. Again, while this seems plausible, it is important to note that the direction of this bias would be negative, thereby increasing the likelihood that we falsely reject our prediction rather than falsely corroborating it. Nevertheless, this remains an ancillary descriptive exercise, the purpose of which is to determine whether or not correlational evidence on the direction of  $\delta$  is supportive of our main analysis.

The results in Table 3 support the hypothesis. In all six specifications, *desired aid* is higher in countries where the mean:median income ratio is higher. As the ratio increases by 1, citizens are expected to support foreign aid by 2.2 to 5.7 additional percentage points. In Table A2, we re-run the specifications using the before tax Gini coefficient rather than the mean:median income ratio, and find broadly similar results: citizens in more unequal countries support higher levels of ODA expenditure as a percentage of national income.<sup>8</sup> In Figure 3, we plot bivariate linear fits with equality section (via Social and Welfare Statistics > Social Protection) of the OECD’s statistical website at <http://stats.oecd.org>.

<sup>8</sup>Data on the GINI coefficient comes from the same OECD database.

country identifiers using both measures.

## 4.2 Extensions: special interests and actual aid

The observation that support for foreign aid is higher in countries with greater income inequality begs an important question: why do historically equitable Nordic countries spend relatively more on ODA as a share of GNI?

One potential explanation relates to the role of politically powerful special interest groups, who have both the means and the incentives to influence the policy choices of politicians away from the median voter's preference. As argued by Lancaster (2007: 6), who served as Deputy Administrator of the US Agency for International Development (USAID): “[i]nterests are the most dynamic factor in aid giving.” Interest groups are in constant competition for public resources. Their preferences are manifested in lobbying activities, which take the form of monetary transfers to politicians (both legal contributions and illegal bribes) and other types of public pressure. This may affect foreign aid in two ways: first, it may change its composition if certain domestic groups stand to benefit from different forms of aid, i.e., food aid and construction projects may involve lucrative contracts with competing domestic firms. Second, it may diminish the overall level of foreign aid if well-funded private lobby groups simply crowd out ODA from public expenditures. It is on this second form of distortion that we focus in this section.

We have argued that support for government-funded foreign aid is decreasing in an individual's relative income within a country. This is a sufficient condition for the model of special interest politics in Grossman and Helpman (1996, 2001) to yield the following proposition: the extent to which politicians can be influenced by payments from special interests will determine the extent to which actual ODA/GNI is lower than the median voter's ideal ODA/GNI.

To understand why this is case, assume that, rather than implementing the preferred policy of the median voter, the politician instead optimizes the weighted average utility of the median voter *and* the politically powerful, who can influence the politician by offering payments for shifts in policy away from the median voter’s ideal point and toward their own ideal point. We have already established that  $\tau'_i(y_i) < 0$ , which implies that the rich will pay politicians to choose a lower rate of taxation, and therefore a lower level of foreign aid. This process will affect aid expenditures more in countries where private interests can shape policy through payments to politicians, and less in countries where political institutions curb this type of influence.<sup>9</sup>

An interesting corollary is that, in countries with more inequality, high-income special interests will be incentivized to reduce taxation by a greater amount. This follows from the result that the median voter’s ideal tax rate is higher in these countries. This could explain why Chong and Gradstein (2008) find that inequality is negatively correlated with actual aid, while we find that inequality is positively correlated with *desired aid*.

To what extent is this theory reflected in the data? Figure 4 shows the relative sizes of the median *desired aid* value (red) and actual ODA (black) for each country. The red vertical line represents parity, i.e, where median *desired aid* = actual aid. The ratio ranges from almost parity to over 9:1. The figure confirms that the gap between the median voter’s preference and the ultimate policy choice (what we call the “democratic aid deficit”) is lowest in the Nordic countries of Sweden, Norway,

---

<sup>9</sup>Lancaster (2006) notes, for example, that in Japan and France, a fragmented aid constituency meant that development concerns were relegated behind other interests that were served by more coordinated lobbying activities. In the US, the aid constituency, while alive, is “weak, perhaps, compared to the powerful organizations” representing other interests (pp.100): “USAID’s relative weakness as a subcabinet agency is compounded by the fact that there are often strong private interests behind trade and other issues (e.g., small arms exports), and where they collide with development concerns, the latter tend to come out second best” (pp. 102).

Finland and Denmark, along with Luxembourg and the Netherlands.

In Figure 5, we plot actual ODA on the vertical axis against a measure of special interest lobbying on the horizontal axis. The lobbying variable is the mean value of seven measures in the Executive Opinion Survey (EOS) in the World Economic Forum’s Global Competitiveness Report 2004-2005.<sup>10</sup> The EOS is a mail-based survey of executives from an average of 84 firms of widely varying sizes, sectors, and types of ownerships in 104 countries. We limit the data to the relevant donor countries in our analysis, and record for each one mean responses to questions on various forms of state capture, presented in Appendix Table A3. The variables record firm managers’ assessment of public trust in the financial honesty of politicians (‘Financial Dishonesty’); government favour toward well-connected firms and individuals (‘Bias’); the prevalence of illegal donations to political parties (‘Illegal Donations’); the effect of legal contributions to political parties on public policy (‘Effect of Contributions’); the diversion of public funds to companies, individuals or groups due to corruption (‘Budget Corruption’); the prevalence of bribes connected with influencing laws, policies, regulations or decrees to favour selected business interests (‘Bribery’); and the influence of well-connected individuals or firms on recent policies that had an influence on the respondent’s business (‘Private Influence’).

We impose on Figure 5 two red lines to indicate the median value of each measure. A negative correlation is immediately clear: countries with relatively little lobbying activity are also those that spend more on ODA (i.e., Norway, Sweden and Denmark), whereas countries with higher lobbying are those that spend less on ODA (i.e., Poland, Korea, Czech Republic).

In Table 5, we check the robustness of this correlation by regressing, at the

---

<sup>10</sup>More information on the Executive Opinion Survey is available in Kaufmann and Vicente (2011) and on the official website at <https://wefsurvey.org/index.php?sid=28226lang=enintro=0>. The most recent sampling procedures are described on page 77 of the Global Competitiveness Report at [http://www3.weforum.org/docs/WEF\\_GCRReport2011-12.pdf](http://www3.weforum.org/docs/WEF_GCRReport2011-12.pdf).

country-level, actual aid (ODA/GNI) on each of the seven lobbying variables (columns 1 to 7), as well as the principal component (column 8). In all specifications, we include controls for every country-level indicator used in Table 3. In Panel A, we see that, in seven out of eight regressions, the lobbying variable enters with a negative and significant coefficient. Perhaps surprisingly, the coefficient on the median value of *desired aid* is positive and significant only in column (3). In Panel B, we interact the median value of *desired aid* with the WGI measure of democracy (“Voice and Accountability”), which ranges from -2.5 to +2.5. The results show that the median voter’s preference significantly predicts the policy outcome in more democratic countries. In Panel C, we control for a potentially confounding “crowding out” effect. If governments optimally reduce ODA where private aid donations are higher, and if private aid donations are higher in countries with weaker institutions, then it is possible that this explains the observed negative correlation between lobbying and ODA.

To assuage this concern, we include a variable that measures private aid donations amongst the 2006 Voice of the People sample. The measure is based on responses to the following survey question:

Over the past year, what share of your household income was spent on private aid/charities for helping in developing countries?

The answers are coded using the same 11-point scale as that used for the previous aid measures. We see in Panel C that, while a certain amount of crowding out may be at play, the main results remain robust to the inclusion of this measure.

Across all panels, the prevalence of monetary contributions to policymakers is shown to be negatively correlated with government aid donations. Taking the principal component as the primary scale of lobby influence, we show that a one standard deviation increase in lobbying is associated with a decrease in foreign aid by around

0.37 GNI percentage points—greater than any other variable in the model, including GDP growth, trade openness and democracy.

## 5 Crowding out

In this section, we exploit unique features of our dataset to examine whether or not government expenditure on foreign aid “crowds out” private contributions.

The traditional argument states that increased government expenditure on foreign aid reduces private donations, as people optimally withdraw their direct contributions once they are obliged to donate to charities through involuntary taxes (Warr, 1982, Bergstrom et al., 1986).

However, empirical evidence from Andreoni and Payne (2011a) presents a more complex picture. Using a panel of US charitable organisations, they observe that government grants crowd out private donations by around 76%; that is, each marginal dollar received from the government leads to a reduction in revenues from private donors by 76 cents. They decompose the crowding out of donations into two channels: the classic channel (*direct crowding out*), as described above; and the fundraising channel (*indirect crowding out*), through which charities in receipt of government grants reduce their fundraising activities, and, as a consequence, income from private donations. They find no evidence of classic crowding out. Rather, they find that indirect crowding out is around 80%, whereas the direct effect of government grants is a *crowding in* of 4%. In effect, a \$1000 government grant to a charity causes individuals to donate a further \$40, while simultaneously causing the charity to forego fundraising activities that would have yielded \$800 of private revenues. Furthermore, the crowding-out estimate is an upper bound, as it does not account for the fall in costs associated with less fundraising activities. Accounting for this leads the authors to revise the indirect effect from 80% to 66%, resulting in an

overall crowding out effect of around 62%.<sup>11</sup>

An explanation for these results is given by Andreoni and Payne (2011b) and, more formally, by Name-Correa and Yildirim (2012). Three main actors interact in a game for the allocation of foreign aid—the government, which spends tax revenues on foreign aid through charitable organisations; charitable organisations, who solicit funds from government and individuals for reallocation abroad; and individuals who pay taxes and also donate to charity.

Charities compete with each other for donations. Citizens are concerned with the effectiveness of their donation—or the ‘quality’ of the charity—on which they only have partial information. Individuals are also sensitive to the costs of donating, which can be reduced through fundraising activities by charities, such as soliciting donations in person or over the phone. Fundraising can also provide information that can attract donors. However, excessive fundraising is wasteful, and can potentially deter donors (Rose-Ackerman, 1982; Okten and Weisbrod, 2000).

Grants from government can have two possible direct effects on individual donations. The first, described above, leads to the withdrawal of private donations in response to the imposition of an involuntary tax to fund charities (direct crowding out). But given that individuals only have partial information on the quality of charities, the fact that one was successful in applying for government support may convey a positive signal that could provoke giving (Andreoni, 1998, 2006; Vesterlund, 2003). The empirical literature described above suggests that this signal (crowding in) effect dominates the direct crowding-out effect.

Finally, individuals do not give unless they are solicited directly (Meer and

---

<sup>11</sup>Similar results are found in Andreoni and Payne (2003) and (2011b). In the latter, richer data from a Canadian panel allow the authors to decompose further the sources of crowding out. The largest effect is attributed to reduced special fundraising activities, such as gala events or sponsorships. A significant effect is also attributed to a decline in grants from foundations and other charities.

Rosen, 2011; Andreoni and Rao, 2011, and Andreoni et al, 2011 provide evidence of this effect) and fundraising, all else equal, is an undesirable activity that charities would rather eschew in order to devote resources to their stated mission. Under these assumptions, Name-Correa and Yildirim (2012) predict that government grants should result in lower fundraising efforts and incomplete crowding out, i.e., a reduction in private donations of less than unity.

## 5.1 Estimation

Our dataset permits a unique test of these pathways in the context of foreign aid donations. By regressing *private aid* on measures of both actual ODA and *perceived aid*, we are in a position to decouple the indirect and direct effects of government aid on private donations. We argue that the direct effects—both the crowding out channel, whereby households reduce foreign aid donations when they see increases in ODA; and the crowding in channel, whereby they view government grants to charities as signals of quality—ought to be picked up by the coefficient on *perceived aid*. This is because both effects operate through an individual’s beliefs about current government aid expenditure. Conversely, the indirect crowding out effect, which operates through a reduction in fundraising by charities, ought to be picked up by the coefficient on actual ODA, as it is a response to actual aid expenditures rather than beliefs.

We therefore estimate the following specification:

$$\begin{aligned} private\ aid_{ict=2006} = & \alpha_{ic} + \zeta^i actual\ aid_c + \zeta^d perceived\ aid_{ic} + \gamma_{ic} \times \kappa_{ic} \\ & + \phi_{ic} \times \omega_{ic} + \varphi Y_c + \mathbf{K}_c \Theta + \mathbf{G}_c \Omega + \epsilon_{ic}. \end{aligned} \quad (7)$$

A negative  $\zeta^i$  suggests that there is indirect crowding out, and the sign on  $\zeta^d$  will



indicate whether the total direct effect is dominated by crowing in or crowding out.

Given that the outcome variable is measured only in 2006, and that actual aid is measured at the country level, we must omit fixed effects for country and year, including instead the battery of individual and country level controls from the inequality regression (specification 6).

While this is a major limitation in terms of our ability to infer a causal relationship, there are steps we can take to improve the robustness of the exercise. First, we instrument actual aid with the principal component of the lobbying variable used in the previous section, where we can draw upon a theoretical and empirical basis for a significant first stage relationship. Of course, an important question remains as to validity of the exclusion restriction. We argue that, given our set of controls for interacted categories of education, employment, age and gender, together with country level measures of GDP per capita, GDP growth, inequality, population, land size, trade openness and governance, it is plausible that the lobbying variable is conditionally independent of the error term  $\epsilon_{ic}$ . While we cannot definitively test this assumption, we can find some assurance from an overidentification test in the presence of a second instrument. On this, we again look to our main analysis for theoretical and empirical support. Rearranging comparative statics in equation (1), we can see that an individual's ideal level of ODA is increasing in population  $n$ . Consistent with this, we find in the ODA/GNI regressions in Section 4.2 that actual aid is indeed greater in countries with a higher (log) population. If we assume that both lobbying and population do not violate the exclusion restriction through the same channel, then a failure to reject a test of overidentifying restrictions would be somewhat reassuring.

A second step to improve the robustness of this exercise is to consider once again the role of measurement error in the self-reported aid variables. We would argue that

this is less of a concern than in the *desired aid* regressions, as the outcome variable in this instance is private aid donations as a percentage of household income, whereas respondents estimate *perceived aid* as a percentage of GNI. Nevertheless, we include *desired aid* as a control variable.

## 5.2 Results

We show the results of this specification in Table 5. In column (1), the estimated coefficient on actual aid ( $\hat{\zeta}_{OLS}^i$ ) is -0.48 (s.e. = 0.13), meaning that a 1 percentage point increase in ODA/GNI is associated with a 0.48 pp fall in household donations to foreign aid as a share of income. The estimated coefficient on *perceived aid* ( $\hat{\zeta}^d$ ) is +0.09 (s.e. = 0.01).

We might be concerned that  $\hat{\zeta}_{OLS}^i$  is driven by omitted factors, such as a general pro-foreign aid sentiment or the occurrence of natural disasters, famines or other humanitarian crises that simultaneously drives both public and private aid donations. In column (2), we instrument actual aid with the principal component of the lobbying variables introduced in the previous section. The first stage is significant, and the new estimated coefficient  $\hat{\zeta}_{IV}^i$  falls to -0.64 (s.e. = 0.22). This is consistent with attenuation bias in  $\hat{\zeta}_{OLS}^i$  due to an omitted variable that affects both *private aid* and actual aid in the same direction. While this is reassuring, we cannot with confidence rule out the possibility that other omitted factors (perhaps relating to culture), are simultaneously correlated with actual and the error term. To address this, we add the second instrument (the natural log of population) in column (3). The main results are unchanged, and the chi-squared p-value on the overidentification test for both instruments is 0.22. In column (4), we add *desired aid* as a control variable. While both coefficients move closer to zero, they are still significant and the signs remain unchanged. In this case, the p-value on the overidentification test

increases to 0.42.

While the magnitudes are in the region of previous estimates in the literature, we must interpret them with the caveat that these are robust correlations rather than causal estimates. This caveat notwithstanding, the results are consistent with recent evidence in the literature that crowding out occurs through an indirect fundraising channel, and that direct crowding in (through a signaling effect) more than offsets any traditional direct crowding out mechanism.

## 6 Conclusion

This paper introduces a new dataset on attitudes toward foreign aid among citizens of donor countries. We find that, within countries, those with relative higher incomes are more likely to prefer lower government spending on foreign aid (ODA). We also find that preferences for ODA are higher in countries with greater income inequality, a correlation that is consistent with a very simple model of redistributive politics, but less so with the observation that relatively equitable societies seem to donate a higher share of their GNI overseas. We offer one explanation for this apparent discrepancy: that government expenditure on ODA is crowded out by special interests in countries where lobbying is prevalent. We provide correlational evidence in support of this argument using survey data from business managers on political contributions and bribes.

The dataset also permits a novel examination of the ‘crowding out’ hypothesis. We find no evidence for the classical hypothesis that individuals optimally withdraw household expenditure on foreign aid when they observe higher ODA expenditure. Rather, we see evidence consistent with emerging literature that (i) crowding out occurs through an indirect fundraising channel, and (ii) that there exists a direct crowding in effect, whereby ODA grants to charities provide a signal of their quality

to households.

While our analysis sheds a new light on attitudes and behaviours relating to foreign aid in donor countries, much remains to be done to establish a broad body of evidence based on experimental or quasi-experimental evidence. It is our hope that this study, and this dataset, will provide a foundation for future research in this direction.

- Alesina, A. and D. Dollar (2000). Who Gives Foreign Aid to Whom and Why? *Journal of Economic Growth*, 5(1), pp. 33-63.
- Acemoglu, D. and J. Robinson (2006). *Economic Origins of Dictatorship and Democracy*. New York, NY: Cambridge University Press.
- Andreoni, J. (1990). Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving. *Economic Journal*, 100, pp. 464-477.
- Andreoni, J. (1998). Toward a Theory of Charitable Fundraising. *Journal of Political Economy*, 106, pp. 1186-1213.
- Andreoni, J. (2006). Philanthropy. In S-C. Kolm and J. Mercier Ytier, eds., *Handbook of Giving, Reciprocity and Altruism*, pp. 1201-1269, Amsterdam: North Holland.
- Andreoni, J. and A.A. Payne (2003). Do Government Grants to Private Charities Crowd Out Giving or Fund-raising? *American Economic Review*, 93(3), pp. 792-812.
- Andreoni, J. and A.A. Payne (2011a). Is Crowding Out Due Entirely to Fundraising? Evidence from a Panel of Charities. *Journal of Public Economics*, 95, pp. 334-343.
- Andreoni, J. and A.A. Payne (2011b). Crowding-Out Charitable Contributions in Canada: New Knowledge from the North. University of California, San Diego, Mimeo.
- Andreoni, J. and J.M. Rao. (2011). The Power of Asking: How Communication Affects Selfishness, Empathy, and Altruism. *Journal of Public Economics*, 95, pp. 513-520.
- Andreoni, J., J. M. Rao, and H. Trachtman, (2011). Avoiding the Ask: A Field Experiment on Altruism, Empathy, and Charitable Giving. University of California, San Diego, Mimeo.
- Bergstrom, T. C., L. E. Blume, and H. R. Varian (1986). On the Private Provision of Public Goods. *Journal of Public Economics*, 29, pp. 25-49.
- Burnside, C., D. Dollar (2000). Aid, Policies, and Growth. *American Economic Review*, 90(4), pp. 847-868.

- Chen, M.K. (2013). The Effect of Language on Economic Behavior: Evidence from Savings Rates, Health Behaviors, and Retirement Assets. *American Economic Review*, 103(2), pp. 690-731
- Chong, A., and M. Gradstein (2008). What Determines Foreign Aid? The Donors? Perspective. *Journal of Development Economics*, 87, pp. 1-13.
- Collier, P. and D. Dollar (2002). Aid Allocation and Poverty Reduction. *European Economic Review*, 45(8), pp. 1470-1500.
- Dollar, D. and V. Levin (2006). The Increasing Selectivity of Foreign Aid, 1984-2003. *World Development*, 34(12), pp 2034-2046.
- Dreher, A. and N. M. Jensen (2007). Independent Actor or Agent? An Empirical Analysis of the Impact of U.S. Interests on International Monetary Fund Conditions. *Journal of Law and Economics*, 50(1), pp. 105-24.
- Dreher, A., J-E Sturm and J. R. Vreland (2009). Development Aid and International Politics: Does Membership on the UN Security Council Influence World Bank Decisions? *Journal of Development Economics*, 88(1), pp. 1-18.
- Dudley, L. and C. Montmarquette (1976). A Model of the Supply of Bilateral Foreign Aid. *American Economic Review*, 66(1), pp. 132-142.
- Fleck, R. K. and C. Kilby (2010). Changing Aid Regimes? U.S. Foreign Aid from the Cold War to the War on Terror. *Journal of Development Economics*, 91(2), pp. 185-197.
- Grossman, G., and E. Helpman (1996). Electoral Competition and Special Interest Politics. *The Review of Economic Studies*, 63(2), pp. 265-286.
- Grossman, G., and E. Helpman (2001). *Special Interest Politics*, Cambridge, MA: MIT Press.
- Hochman, H. M., and J.D. Rodgers (1969). Pareto Optimal Redistributions, *American Economic Review*, 59, pp. 542-547.
- Kaufman, D., and P. C. Vicente (2011). Legal Corruption. *Economics and Politics*, 23(2), pp. 195-219.
- Kilby, C. (2009). The Political Economy of Conditionality: An Empirical Analysis

- of World Bank Loan Disbursements. *Journal of Development Economics*, 89(1), pp. 51-61.
- Kolm, S-C. (1969). The Optimal Production of Social Justice. In J. Margolis and H. Guitton, eds., *Public Economics: An Analysis of Public Production and Consumption and Their Relations to the Private Sectors*, pp. 145-200, London: MacMillian Press.
- Lancaster, C. (2007). *Foreign Aid: Diplomacy, Development, Domestic Politics*, Chicago, IL: University of Chicago Press.
- Lundborg, P. (1998). Foreign Aid and International Support as Gift Exchange, *Economics and Politics*, 10(2), pp. 127-141.
- Maizels, A. and M. K. Nissanke (1984). Motivations for Aid to Developing Countries, *World Development*, 12(9), pp. 879-900.
- McKinley, R. D. and R. Little (1979). The US Aid Relationship: A Test of the Recipient Need and the Donor Interest Models. *Political Studies*, 27(2), pp. 236-250.
- Meer, J. and H. S. Rosen (2011). The ABCs of Charitable Giving. *Journal of Public Economics*, 95(5-6), pp. 363-371.
- Meltzer, A. and S.F. Richard (1981). A Rational Theory of the Size of Government. *Journal of Political Economy*, 89(5), pp. 914-27.
- Name-Correa, A.J. and H. Yildirim (2012). A Theory of Charitable Fund-Raising with Costly Solicitations. *American Economic Review*, 103(2), pp. 1091-1107.
- OECD (2011), *Society at a Glance 2011 - OECD Social Indicators* ([www.oecd.org/els/social/indicators/SAG](http://www.oecd.org/els/social/indicators/SAG))
- Okten, C. and B.A. Weisbrod (2000). Determinants of Donations in Private Non-profit Markets. *Journal of Public Economics*, (75), pp. 255-272.
- Paxton, P., and S. Knack (2012), Individual and Country-Level Factors Affecting Support for Foreign Aid. *International Political Science Review*, 33(2), pp. 171-192.
- Rose-Ackerman, S. (1982). Charitable Giving and 'Excessive' Fund-raising. *Quarterly Journal of Economics*, 97, pp.193-212.

- Roberts, K. (1977). Voting over Income Tax Schedules. *Journal of Public Economics*, 8(3), pp. 329-340.
- Romer, T. (1975). Individual Welfare, Majority Voting, and the Properties of a Linear Income Tax. *Journal of Public Economics*, 4(2), pp. 163-185.
- Schweinberger, A. G., and S. Lahiri (2006). On the Provision of Official and Private Foreign Aid. *Journal of Development Economics*, 80, pp. 179-197.
- Trumbull, W. N., and H. J. Wall (1994). Estimating Aid-allocation Criteria with Panel Data. *Economic Journal*, 104(425), pp. 876-882.
- Vesterlund, Lise (2003). Informational Value of Sequential Fundraising. *Journal of Public Economics*, 87, pp. 627-657.
- Warr, P. G. (1982). Pareto Optimal Redistribution and Private Charity. *Journal of Public Economics*, 19, pp. 131-138.



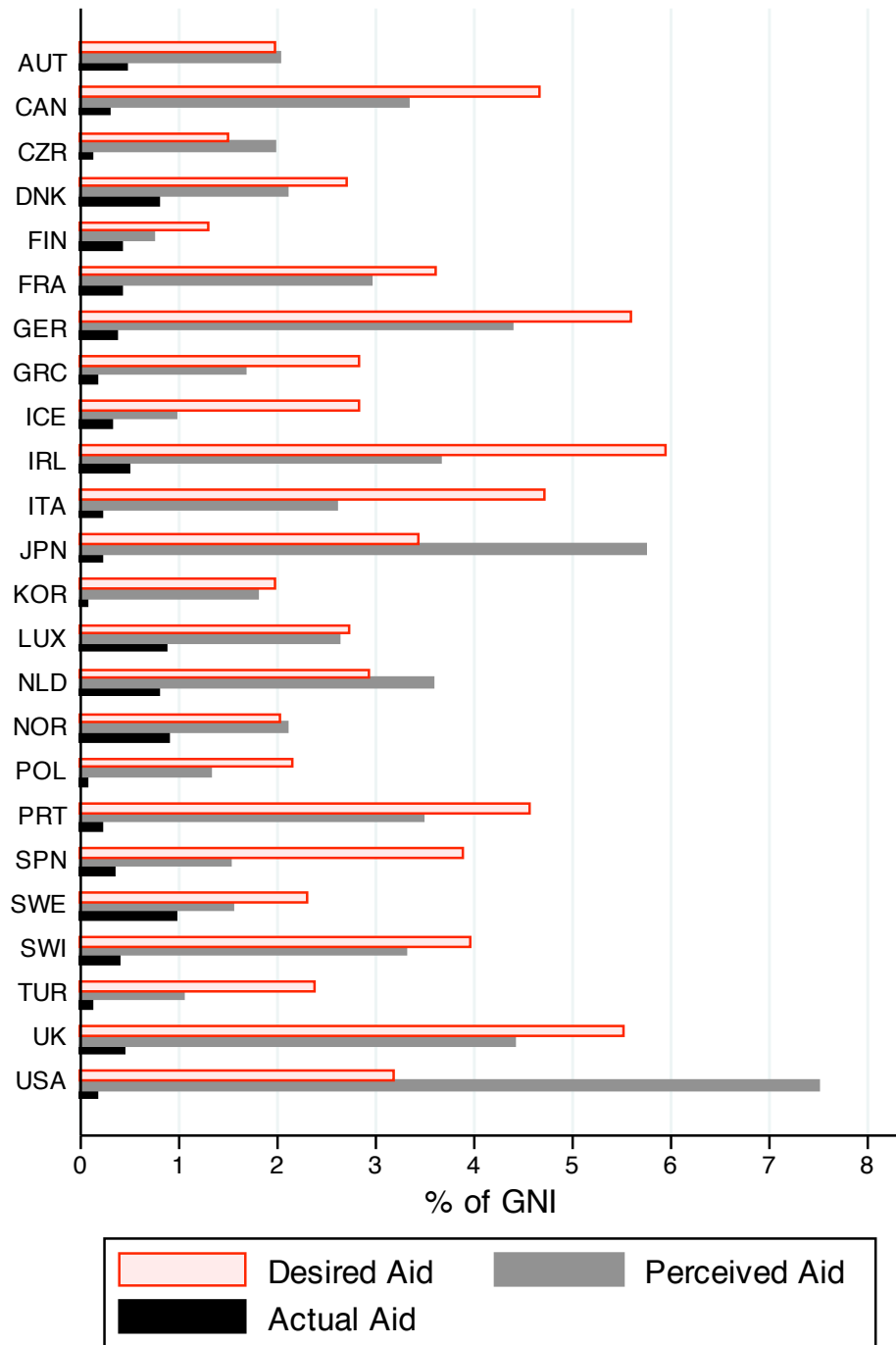


Figure 1: Sample mean of aid variables by country

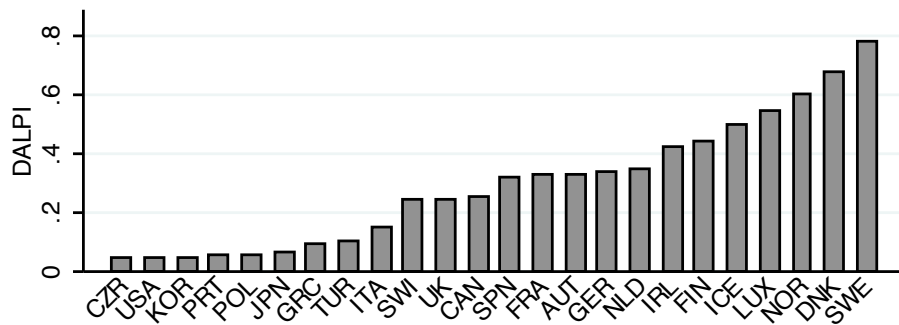
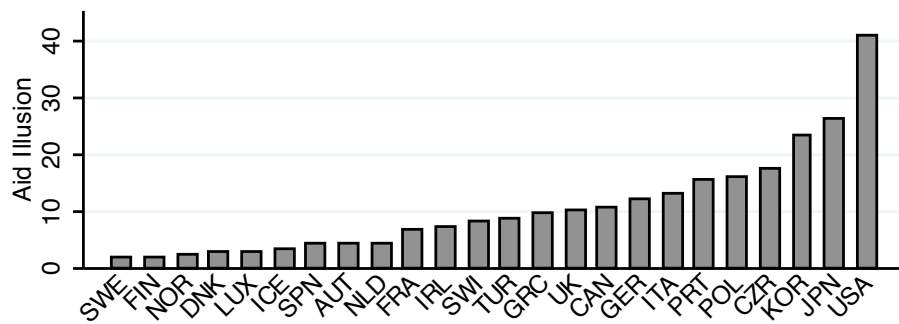
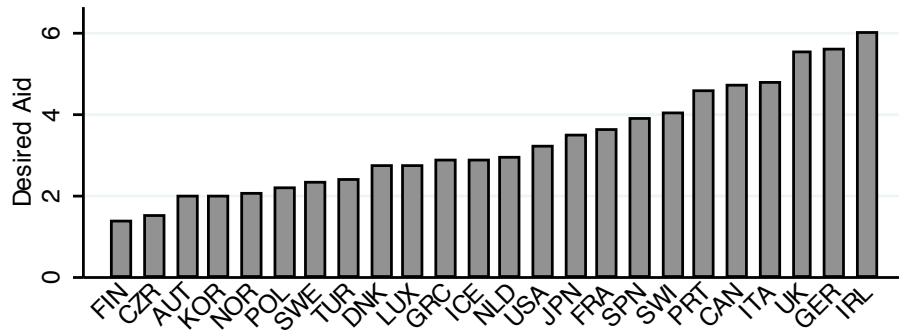


Figure 2: Desired Aid, Aid Illusion and DALPI by country

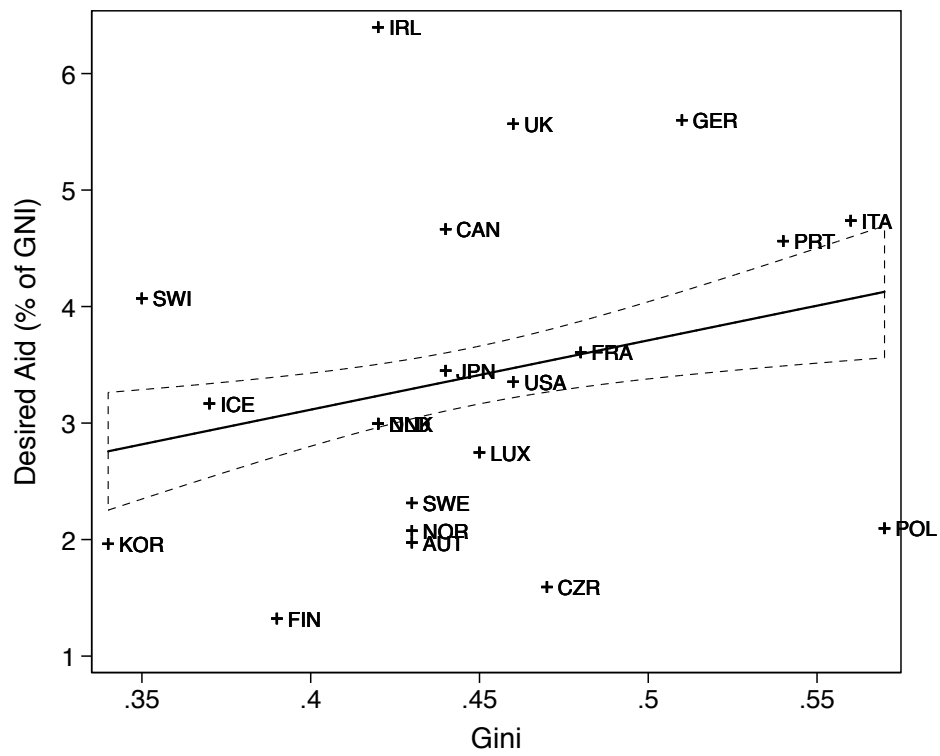
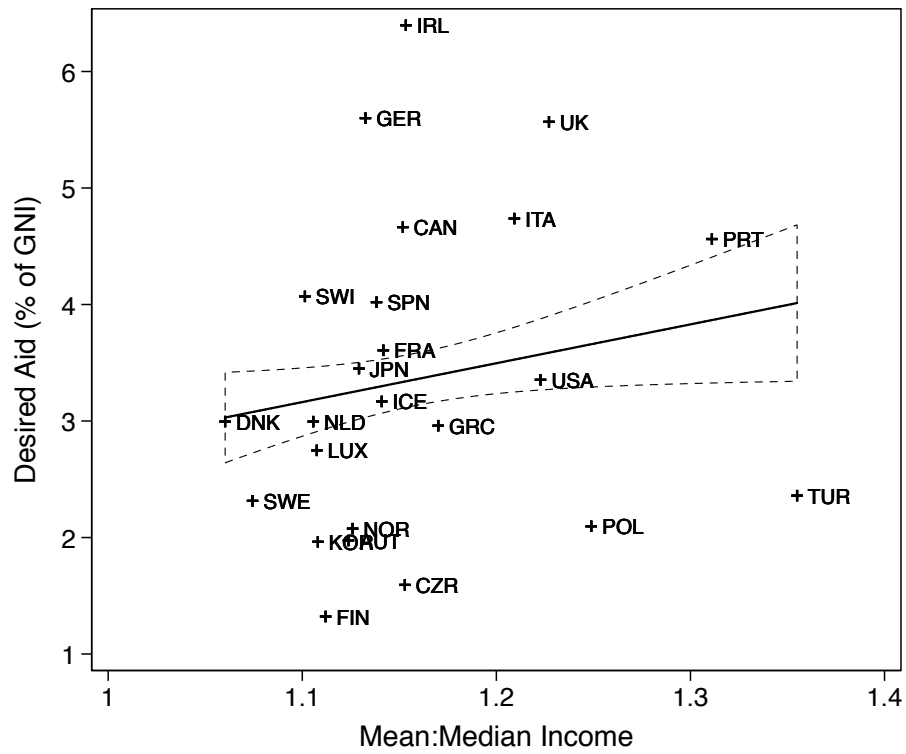


Figure 3: Inequality and *desired aid* (country means), linear fit and 90% confidence intervals

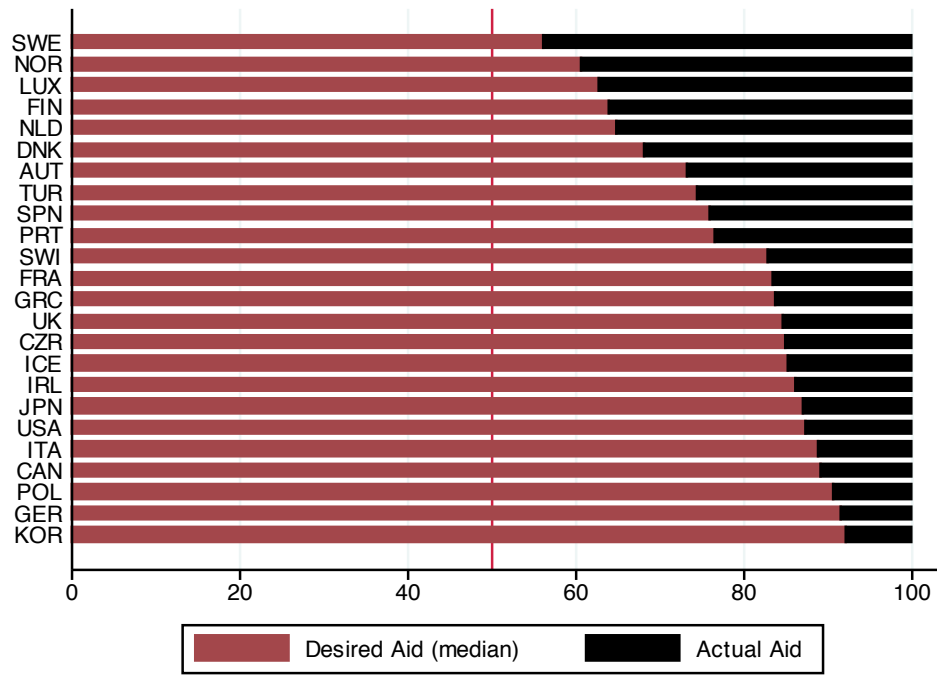


Figure 4: Democratic Aid Deficit

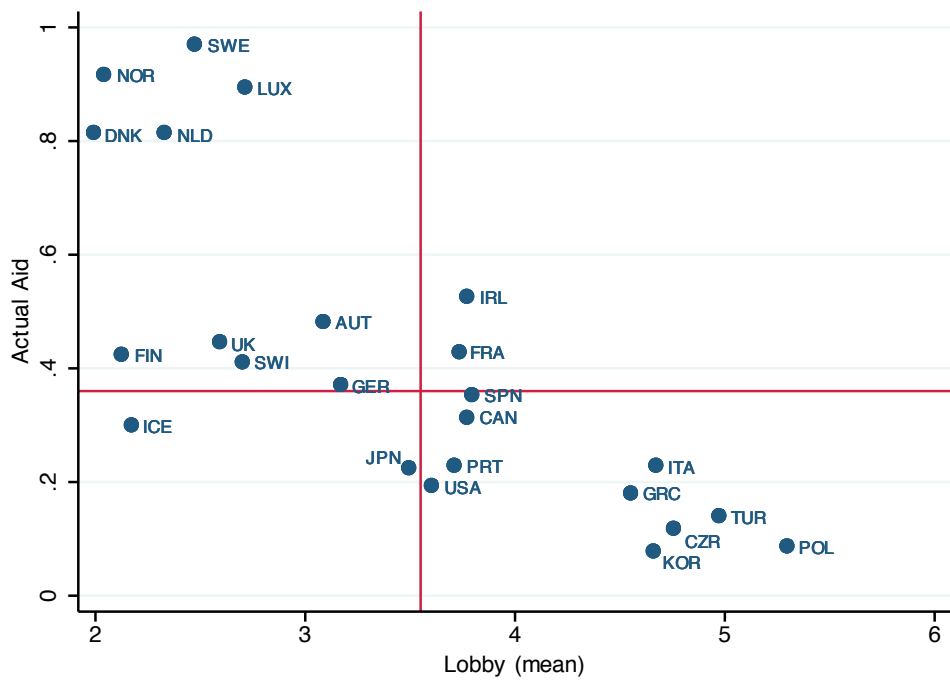


Figure 5: Actual Aid and Lobby score by country with median split



## Tables

Table 1: Data Summary

	2005	2006	2007	2008	Desired Aid	Perceived Aid	Actual Aid
AUT	669	969	804	826	1.989 (3.404)	2.040 (3.976)	0.478 (0.033)
CAN	1001	1000	1007	1012	4.684 (5.999)	3.345 (5.483)	0.313 (0.023)
CZR	500	1000	1000	1000	1.511 (3.001)	1.995 (3.825)	0.116 (0.005)
DNK	500	500	1118	1069	2.713 (4.098)	2.122 (3.555)	0.812 (0.007)
FIN	1289	1249	1154	1267	1.321 (2.574)	0.763 (1.712)	0.423 (0.029)
FRA	1003	1012	1000	.	3.618 (5.001)	2.959 (4.819)	0.440 (0.042)
GER	500	505	500	503	5.600 (6.451)	4.406 (6.139)	0.368 (0.008)
GRC	500	1000	1000	1000	2.849 (5.308)	1.684 (3.955)	0.181 (0.020)
ICE	500	1018	1081	1084	2.849 (4.143)	0.986 (1.986)	0.317 (0.103)
IRL	500	.	1020	.	5.957 (7.062)	3.671 (5.943)	0.507 (0.061)
ITA	502	988	1000	1001	4.727 (6.557)	2.626 (5.251)	0.216 (0.033)
JPN	2393	1203	1200	1200	3.453 (5.208)	5.755 (7.395)	0.234 (0.046)
KOR	1515	1504	1001	1519	1.995 (3.909)	1.799 (3.868)	0.078 (0.020)
LUX	582	528	504	532	2.735 (3.880)	2.642 (4.016)	0.890 (0.067)
NLD	549	1000	1009	1031	2.944 (4.509)	3.596 (5.231)	0.809 (0.006)
NOR	510	1008	1006	1000	2.040 (2.849)	2.120 (3.462)	0.912 (0.031)
POL	908	1021	1048	1024	2.154 (4.286)	1.331 (3.558)	0.086 (0.011)
PRT	520	1000	1000	1000	4.570 (7.395)	3.506 (6.614)	0.230 (0.026)
SPN	500	1000	1000	500	3.893 (6.310)	1.544 (3.739)	0.350 (0.056)
SWE	.	1000	1000	1000	2.322 (3.718)	1.558 (2.747)	0.977 (0.037)
SWI	500	1000	1037	1005	3.983 (5.432)	3.330 (5.148)	0.407 (0.026)
TUR	2036	2045	2015	2004	2.378 (5.466)	1.055 (3.434)	0.138 (0.038)
UK	1031	1025	1000	1009	5.520 (7.190)	4.420 (6.841)	0.443 (0.055)
USA	504	1022	1019	1000	3.190 (5.589)	7.516 (9.316)	0.184 (0.022)
Mean	827	1026	1022	1027	3.142 (5.21)	2.65 (5.082)	0.371 (0.264)
Observations	19012	23597	24523	22586	63024	55864	89718

Desired Aid measures respondents' preferred level of ODA as a share of GNI (in percentage points). *perceived aid* measures respondents' beliefs about current levels of ODA in the same units. Actual Aid is ODA.

Table 2: Aid Preferences and Relative Income

	Desired Aid				
	(1)	(2)	(3)	(4)	(5)
Income: High	-0.5195*** (0.0849)	-0.1657** (0.0741)	-0.1408** (0.0705)	-0.1323* (0.0704)	-0.1323* (0.0675)
Income: Medium / Medium High	-0.2801*** (0.0594)	-0.1069** (0.0536)	-0.0771 (0.0507)	-0.0686 (0.0521)	-0.0470 (0.0521)
Perceived Aid		0.4122*** (0.0212)	0.4080*** (0.0207)	0.4014*** (0.0207)	0.4070*** (0.0208)
Country $\times$ Year FE	Yes	Yes	Yes	Yes	Yes
Age $\times$ Gender FE	No	No	Yes	Yes	Yes
Educ $\times$ Employment FE	No	No	No	Yes	Yes
Full set of interacted FE	No	No	No	No	Yes
R squared	0.081	0.234	0.245	0.241	0.328
Observations	52765	44434	44426	43428	41202

The outcome variable is measured in percentage points of national income. The omitted category for relative income is “Low / Medium Low”, which comprises of the lowest two quintiles in the country-year distribution. The full set of interacted fixed effects included fixed effects for categories of age (4 categories), gender (2), education (3), employment (4), country (24), year (4) and all interactions between them. Column (5) also includes fixed effects for religion. Standard errors are adjusted to allow for correlation within country-year income groups. (\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ).

Table 3: Aid Preferences and Mean:Median Income Ratio

	Desired Aid					
	(1)	(2)	(3)	(4)	(5)	(6)
Mean:Median Income Ratio	2.2366* (1.2261)	2.8046* (1.4816)	5.7121*** (1.5199)	4.9061*** (1.5896)	3.8199** (1.5621)	2.4535 (1.7765)
Income: High	-0.1336 (0.1793)	-0.1915 (0.1728)	-0.1978 (0.1786)	-0.2095 (0.1699)	-0.2394 (0.1680)	-0.2047 (0.1607)
Income: Medium / Medium High	-0.0225 (0.1779)	-0.0356 (0.1631)	-0.0519 (0.1719)	-0.0522 (0.1554)	-0.1003 (0.1448)	-0.0759 (0.1388)
Perceived Aid	0.4099*** (0.0241)	0.4137*** (0.0234)	0.4303*** (0.0209)	0.4344*** (0.0206)	0.4318*** (0.0203)	0.4374*** (0.0201)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Age × Gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Educ × Employment FE	Yes	Yes	Yes	Yes	Yes	Yes
Full set of interacted FE	No	Yes	No	Yes	No	Yes
Country controls	No	No	Yes	Yes	Yes	Yes
Governance controls	No	No	No	No	Yes	Yes
R squared	0.193	0.211	0.211	0.227	0.223	0.237
Observations	43428	42226	41207	40058	41207	40058

The outcome variable is measured in percentage points of national income. Mean:Median Income Ratio is measured at the country level. The omitted category for (individual) relative income is “Low / Medium Low”, which comprises of the lowest two quintiles in the country-year sample distribution. The full set of interacted fixed effects included fixed effects for categories of age (4 categories), gender (2), education (3), employment (4), year (4) and all interactions between them. Columns (2), (4) and (6) also include fixed effects for religion. Country controls include log GDP per capita, GDP growth, log population, log size, and trade openness. Governance controls include all six World Governance Indicators. Standard errors are adjusted to allow for correlation within country-year income groups. (\* $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ ).



Table 4: Actual Aid and Lobbying

Outcome Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ODA							
	L1: Financial Dishonesty	L2: Bias	L3: Illegal Donations	L4: Effect of Contributions	L5: Budget Corruption	L6 Bribery	L7: Private Influence	L8: Principal Component
<i>Panel A</i>								
Lobby Variable:	-0.128*** (0.028)	-0.209*** (0.039)	-0.198*** (0.036)	-0.204*** (0.040)	-0.225*** (0.042)	-0.240*** (0.071)	-0.048 (0.080)	-0.119*** (0.019)
Desired Aid	0.011 (0.020)	-0.001 (0.019)	0.036** (0.016)	-0.010 (0.019)	-0.015 (0.021)	-0.029 (0.021)	-0.021 (0.018)	0.003 (0.019)
Observations	86	86	86	86	86	86	86	86
R-squared	0.720	0.745	0.785	0.773	0.724	0.687	0.644	0.767
<i>Panel B</i>								
Lobby Variable:	-0.122*** (0.033)	-0.234*** (0.045)	-0.212*** (0.045)	-0.199*** (0.043)	-0.222*** (0.051)	-0.258*** (0.081)	-0.053 (0.082)	-0.128*** (0.023)
Desired Aid * Democracy VA	0.110* (0.064)	0.106* (0.059)	0.047 (0.062)	0.119** (0.056)	0.095 (0.069)	0.185*** (0.060)	0.214*** (0.071)	0.081 (0.052)
Desired Aid	-0.157 (0.101)	-0.168* (0.089)	-0.040 (0.096)	-0.192** (0.084)	-0.161 (0.106)	-0.308*** (0.094)	-0.336*** (0.110)	-0.128 (0.079)
Democracy: Voice and Accountability	0.084 (0.082)	0.205** (0.092)	0.151** (0.070)	0.046 (0.082)	0.059 (0.092)	0.078 (0.097)	0.027 (0.112)	0.149* (0.078)
Observations	86	86	86	86	86	86	86	86
R-squared	0.731	0.772	0.801	0.786	0.736	0.715	0.674	0.789
<i>Panel C</i>								
Lobby Variable:	-0.173*** (0.034)	-0.237*** (0.047)	-0.285*** (0.033)	-0.258*** (0.036)	-0.244*** (0.052)	-0.270*** (0.085)	-0.054 (0.080)	-0.149*** (0.020)
Private Aid	-0.104* (0.057)	-0.001 (0.045)	-0.041 (0.045)	-0.022 (0.045)	-0.118** (0.055)	-0.032 (0.055)	-0.066 (0.055)	-0.047 (0.046)
Observations	84	84	84	84	84	84	84	84
R-squared	0.767	0.778	0.853	0.825	0.754	0.724	0.683	0.815
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

The outcome variable is ODA as a share of GNI. Controls in *Panel A* include: log GDP per capita, GDP growth, mean:median income ratio, log population, log size, trade openness, and the WGI principal component. *Panel B* includes in addition the Democracy Voice & Accountability measure from the WGI and its interaction with Desired Aid. The WGI principal component on this occasion is calculated without the Democracy VA element. The specification in *Panel C* adds Private Aid donations. Robust standard errors in parentheses. (\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ).

Table 5: Private Aid, ODA and Crowding Out

	Private Aid			
	(1)	(2)	(3)	(4)
Actual Aid	-0.4777*** (0.1343)	-0.6187*** (0.2261)	-0.6367*** (0.2251)	-0.3978* (0.2262)
Perceived Aid	0.0913*** (0.0113)	0.0910*** (0.0113)	0.0923*** (0.0111)	0.0373*** (0.0104)
Year FE	Yes	Yes	Yes	Yes
Age $\times$ Gender FE	Yes	Yes	Yes	Yes
Educ $\times$ Employment FE	Yes	Yes	Yes	Yes
Other controls	Yes	Yes	Yes	Yes
Instrument		Lobby	Lobby, ln(Pop)	Lobby, ln(Pop)
First stage F stat		10566.79	5307.16	5058.67
Hansen J stat	0.00	0.00	1.51	0.66
p-value			0.22	0.42
R squared	0.057	0.057	0.057	0.108
Observations	10456	10456	10456	9991

The outcome variable is private aid donations as a share of household income. *Other controls* includes fixed effects for income groups and religion, as well as country level controls for log GDP per capita, mean:median income ratio, log population, log size, trade openness, GDP growth, and the principal component of the World Governance Indicators variables. In column (2), Actual Aid (or ODA) is instrumented with the principal component of the lobbying variables shown in Table 3. In column (3), we add log population as a second instrument. Robust standard errors in parentheses. (\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ).

# Appendix

## Appendix Tables

Table A1: Ordinal Treatment of Desired Aid

	Desired Aid	More Aid Vs. Less Aid
	(1)	(2)
main		
Income: High	0.0184 (0.0182)	0.0067 (0.0242)
Income: Medium / Medium High	0.0068 (0.0135)	0.0141 (0.0162)
Country $\times$ Year FE	Yes	Yes
Age $\times$ Gender FE	Yes	Yes
Educ $\times$ Employment FE	Yes	Yes
Model	Ordered Probit	Probit
Pseudo-R-squared	0.081	0.142
Observations	42246	41234

Column (1) presents results from an ordered probit model with the 11-point *desired aid* scale as the outcome variable. Column (2) present results of a probit model where the outcome is  $1(\text{Desired Aid} > \text{Perceived Aid})$ . The omitted category for relative income is “Low / Medium Low”, which comprises of the lowest two quintiles in the country-year sample distribution. The full set of interacted fixed effects included fixed effects for categories of age (4 categories), gender, education (3), employment (4), country (24), year (4) and all interactions between them. Models also include fixed effects for religion and Perceived Aid. Standard errors are adjusted to allow for correlation within country-year income groups. (\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ).

Table A2: Aid Preferences and Gini Coefficient

	Desired Aid					
	(1)	(2)	(3)	(4)	(5)	(6)
Gini	7.2024*** (1.4727)	5.7078*** (1.4043)	9.2801*** (1.9073)	7.5191*** (1.7770)	3.1623 (3.1573)	2.0898 (2.8646)
Income: High	-0.2549 (0.1909)	-0.2429 (0.1830)	-0.2602 (0.1924)	-0.2338 (0.1829)	-0.2549 (0.1787)	-0.2208 (0.1671)
Income: Medium / Medium High	-0.0857 (0.1869)	-0.0619 (0.1762)	-0.0946 (0.1817)	-0.0749 (0.1697)	-0.1098 (0.1634)	-0.0845 (0.1543)
Perceived Aid	0.3874*** (0.0244)	0.3957*** (0.0243)	0.4143*** (0.0218)	0.4196*** (0.0218)	0.4172*** (0.0212)	0.4232*** (0.0211)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Age × Gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Educ × Employment FE	Yes	Yes	Yes	Yes	Yes	Yes
Full set of interacted FE	No	Yes	No	Yes	No	Yes
Country controls	No	No	Yes	Yes	Yes	Yes
Governance controls	No	No	No	No	Yes	Yes
R squared	0.206	0.226	0.227	0.246	0.235	0.253
Observations	37645	36502	35424	34333	35424	34333

The outcome variable is measured in percentage points of national income. The Gini (before tax) coefficient is measured at the country level. The omitted category for (individual) relative income is “Low / Medium Low”, which comprises of the lowest two quintiles in the country-year sample distribution. The full set of interacted fixed effects included fixed effects for categories of age (4 categories), gender (2), education (3), employment (4), year (4) and all interactions between them. Columns (2), (4) and (6) also include fixed effects for religion. Country controls include log GDP per capita, GDP growth, log population, log size, and trade openness. Governance controls include all six World Governance Indicators. Standard errors are adjusted to allow for correlation within country-year income groups. (\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ ).

Table A3: Lobby Variables

Lobby 1: Financial Dishonesty	Public trust in the financial honesty of politicians is:		
	Very high	1 2 3 4 5 6 7	Very low
Lobby 2: Bias	When deciding on policies and contracts, government officials:		
	Are neutral among firms and individuals	1 2 3 4 5 6 7	Usually favour well-connected firms and individuals
Lobby 3: Illegal Donations	How common are illegal donations to political parties in your country?		
	Never occur	1 2 3 4 5 6 7	Common
Lobby 4: Effect of Contributions	To what extent do legal contributions to political parties have a direct influence on specific public policy outcomes?		
	Little direct influence on policy	1 2 3 4 5 6 7	Very close link between donations and policy
Lobby 5: Budget Corruption	In your country, diversion of public funds to companies, individuals or groups due to corruption		
	Never occurs	1 2 3 4 5 6 7	Is common
Lobby 6: Bribery	In your industry, how commonly would you estimate that firms make undocumented extra payments or bribes connected with the following: Influencing of laws and policies, regulations or decrees to favour selected business interests		
	Never occur	1 2 3 4 5 6 7	Common
Lobby 7: Private Influence	How much influence do you think the individuals or firms with close personal ties to political leaders actually had on recently enacted national laws and regulations that have a substantial impact on your business?		
	No influence at all	1 2 3 4 5 6 7	Enormous influence

Source: Executive Opinion Survey (EOS), Global Competitiveness Report 2004-2005 (World Economic Forum).