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# Public Opinion and Foreign Aid Cuts in Economic Crises

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#### **Abstract**

Economic crises generally lead to reductions in foreign aid. However, the widely held view that budgetary constraints caused by economic crises reduce aid is inaccurate because donor government outlays actually tend to increase. We develop an argument that aid cuts occur because voters place a lower priority on aid during economic downturns and politicians respond by cutting aid. Using data from Eurobarometer, we demonstrate that economic downturns lead to reduced public support for helping the poor abroad. These findings are robust across a large number of alternative specifications. Our findings have implications for how advocates may prevent aid reductions during economic recessions.

Keywords: foreign aid; economic crises; public opinion; EU

# 1 Introduction

Economic crises in rich and developed countries, such as the 2007/2008 financial crisis or the Eurozone crisis that began in 2009, are unequivocally disconcerting to citizens. However, such crises may cause even graver, compounded harm to people in countries that depend on richer countries' foreign aid. Such concerns were particularly evident after the most recent financial crisis. Aid supporters, international organizations, and non-governmental organizations repeatedly implored donor governments not to cut back on their aid commitments. The United Nations Secretary-General, Ban Ki-moon, echoed these sentiments, stating "[T]o the traditional donors, I say: do not let this economic crisis, do not let short-term austerity deflect you from your long-term commitment to the world's poorest people [...] Cutting aid will not balance your budgets. But it will hurt the poor - the most vulnerable of the human family." The CEO of World Vision Australia, a large development NGO, echoed these calls after Australia's ruling coalition proposed cuts in foreign aid. Similarly, Oxfam America ridiculed proposals to cut aid in order to balance the budget in the United States.<sup>2</sup> However, most donors did not heed such calls to stay steady on foreign aid.<sup>3</sup> The broader scholarly evidence shows that such aid cuts by donors are hardly an aberration (Arellano, Bulíř, Lane & Lipschitz 2009, Frot 2009, Dang, Knack & Rogers 2013, Roodman 2008).

What explains such decisions by donor governments? While many studies explore

For these concerns, see for example David Leonhardt, "Lessons from a crisis: when trust vanishes, worry," New York Times, URL: http://nyti.ms/1rDtMMi, September 30, 2008; Jon Cohen and Jennifer Agiesta, "Lots of fear remains over economy, job losses, poll finds," The Washington Post, URL: http://wapo.st/1uMjQdC, September 15, 2009; and Larry Elliot, "Eurozone austerity hits world's poor as Europe's aid falls by €700m," The Guardian, URL: http://bit.ly/1vRwvmI, June 24, 2012.

For all the quotes, see in order: Ban Ki-moon, "Aid Is Not Charity, Says Secretary-General, but Smart Investment in Security, Prosperity, an Engine of Growth that Creates Jobs, Expands Markets," URL: http://bit.ly/1voqef4, November 30, 2011; Tim Costello, "Balancing the books on the backs of the poor," *Australian Broadcasting Company*, URL: http://ab.co/1ylRxZo, September 6, 2013; Oxfam, "Really, THIS is your plan to balance the budget?," URL: http://bit.ly/1ryUnEs, March 27, 2012.

OECD, "Development: Aid to developing countries falls because of global recession," *OECD Newsroom*, April 4, 2012.

the connection between economic crises and aid, few go beyond establishing the empirical relationship. One tempting answer may be that economic crises produce budgetary constraints, and therefore governments reduce aid commitments. While perhaps initially plausible, this answer cannot provide a full explanation. If true, we should expect that in times of economic duress, donor governments' budgets *in general* should be smaller than they were before the crises. A recent flurry of bailouts of financial institutions patently belies this. More systematically, an extensive literature in economics shows that governments tend to increase, not decrease, spending during the initial stages of an economic crisis (e.g. Gali 1994, Lane 2003, Perotti 2005, Fatás & Mihov 2009, Lee & Sung 2007, Auerbach 2009, Égert 2014). As its fundamental assumption does not exhibit much merit, this seemingly plausible answer to why foreign aid commitments drop during economic crises cannot hold much water.

We develop an argument that puts its explanatory locus on the domestic politics within donor countries. As the major aid donors are democracies, we expect politicians that make decisions on foreign aid in such countries to be responsive to their citizens' wishes in general (Powell Jr. 2000, Soroka & Wlezien 2010, Canes-Wrone 2015). We argue that voters shift their attitudes toward aid during economic crises and that election-minded politicians help turn these attitudes into policy. However, why would public support for foreign aid change in response to economic crises? The answer to this is not immediately clear. We know that foreign aid accounts for only a tiny portion of donors' budgets, that it brings tangible benefits (e.g. export promotion), and that it helps achieve a variety of important foreign policy goals, including promoting national security. While politicians and scholars know this, voters tend to see foreign aid as a charity that is costly but without many tangible benefits. As we argue below, these biases and voters' personal beliefs on the state of the economy make foreign aid an easy target for budget cuts during economic crises.

Relying on a variety of variables from several years of the Eurobarometer, we first

show that public support for foreign aid and development efforts strongly decreases when the respondent's personal economic fortunes worsen. This result holds across various measures and alternative specifications. Further, we look for additional evidence to bolster our argument. First, we find that our results hold if we consider economic crises as only the sources of personal economic misfortune. Second, we show that elite preferences do not appear to influence public opinion. We leverage the case of Britain, in which politicians quite uniformly argued adamantly against cutting aid and find that this unified stance does not lead to significantly weaker results in the United Kingdom.

This article makes several contributions to the literature on foreign aid. First, this study introduces a framework that builds on insights from separate bodies of literature on foreign aid allocations, public opinion, retrospective voting, and macroeconomics by showing how financial crises influence politicians' aid decisions through voters' beliefs. While some scholars and journalists have observed that aid cuts during economic recessions may have something to do with changes in public support (e.g. Dang, Knack & Rogers 2013), the current article lays out a theoretical argument that links public opinion, decision-making, and foreign aid, allowing us to actually derive and test a precise hypothesis. Second, our findings complement the growing body of research that investigates the determinants of individual preferences for foreign aid. While previous studies tend to focus on socio-demographic, political, material, and attitudinal factors that change little over time (Noël & Thérien 2002, Chong & Gradstein 2008, Van Heerde & Hudson 2010, Paxton & Knack 2012, Milner & Tingley 2013, Henson & Lindstrom 2013, Bauhr, Charron & Nasiritousi 2013), our work points to an important source of over-time changes in aid support. The focus on changes in one's personal fortunes introduces a powerful over-time variation in support of foreign aid. Furthermore, although previous research has examined the relationship between individual income levels and support for foreign aid (e.g. Chong & Gradstein 2008), this study more directly links changes in individuals' economic circumstances to their support for aid. Third, the results provide guidance for those who wish to uphold foreign aid outlays. Importantly, our argument implies that while giving warnings such as those made by the United Nations Secretary-General can be effective, they need to be well-targeted at voters within donors. We believe that the scant research on how governments might manipulate public opinion on foreign aid should received more attention (Van der Veen 2011).

In the next section, we review the literature on how foreign aid fares during economic crises. Subsequently, we draw on findings from several strands of literature and construct our argument connecting public opinion, politicians, and foreign aid. Using data from several waves of Eurobarometer surveys, we then test our argument about perceived economic downturns and individual support for aid. Next, we carry out two additional ways to check our results. We then conclude with a discussion of the implications of our study for how to prevent donor countries from cutting aid commitments.

# 2 Do Financial Crises Reduce Aid?

An extant literature on foreign aid identifies a number of economic and political determinants of aid (see summarily Alesina & Dollar 2000, Neumayer 2003). Among these, economic crises in donor countries are found to be a powerful predictor of foreign aid.<sup>4</sup> For example, Frot (2009) compares the aid budgets of donors who did and did not experience a financial crisis and reports that foreign aid budgets fell following financial crises in six donor countries since 1970. The magnitudes of these drops are quite drastic: Finland cut its aid by more than 50 percent immediately after its 1991 financial crisis. Using a vector autoregression model, Frot (2009) also examines the effect of changes in GDP, government budget deficits, and unemployment on aid budgets for donor countries. He

See Berthélemy & Tichit (2004), Tingley (2010), Mendoza, Jones & Vergara (2009), Frot (2009), Roodman (2008), Dang, Knack & Rogers (2013), Pallage & Robe (2001), Dabla-Norris, Minoiu & Zanna (2015), and Reinsberg (2015). In a noteworthy departure, Fuchs, Dreher & Nunnenkamp (2014) report that financial crises are not robustly related to donors' total aid budgets.

finds that a negative shock to GDP growth significantly reduces aid disbursements, and that the effects of such a shock are both long-lasting and take time to fully occur.

Others consider bilateral aid flows and find smaller aid flows when the donor is in an economic recession. Controlling for time-varying variables such as income, Dang, Knack & Rogers (2013) find that banking crises are a strong predictor of decreased aid disbursements. Compared to non-crisis countries, aid from crisis-affected countries falls by at least 28%. Furthermore, while the negative effects of the crisis begin almost immediately, aid flows decrease for at least ten years after the crisis's onset. Moreover, Mendoza, Jones & Vergara (2009) show that when stock market uncertainty (which they argue is a good proxy for financial volatility and economic uncertainty) increases, the United States reduces its aid. They also find that worsening economic conditions, represented by an increase in the misery index, decrease U.S. bilateral aid. Similarly, Dabla-Norris, Minoiu & Zanna (2015) find that donors significantly reduce their aid disbursements during periods of severe economic stress, defined as years when deviations from the GDP growth trend fall into the bottom quartile of the donor-specific distribution. These empirical findings justify the concerns of aid practitioners discussed earlier.

Despite these strong empirical findings, scholars have devoted little effort to studying the responsible underlying mechanism. Perhaps this is because there is a seemingly obvious explanation: economic downturns tighten government budgets, and thus lead to cutting outlays across the board, including those for foreign aid. This economic explanation seems to lie at the heart of many statements made by policy makers and diplomats. For example, in response to two successive falls in total aid provided by major donor countries, OECD Secretary-General Angel Gurría said, "It is worrying that budgetary duress in our member countries has led to a second successive fall in total aid."<sup>5</sup>

Not only is this thinking intuitive, but it also naturally follows from existing theories

OECD, "Development: Aid to developing countries falls because of global recession," OECD Newsroom, April 4, 2012.

of foreign aid. For example, Dudley & Montmarquette (1976) treat foreign aid as one consumable good among others and model donors' aid decisions as a budget allocation problem. It follows that if the overall budget goes down, the budget for foreign aid as well as other goods will decline. A recent model of foreign aid allocations proposed by Bueno de Mesquita & Smith (2009), which has attracted attention in political science, predicts the same pattern. In it, the level of the donor's available budget is one of the key determinants of foreign aid: as the budget contracts, so do aid outlays.

While initially plausible, this explanation is not satisfying as its primary assumption is at odds with empirical observations. If a budget contraction were to explain budget cuts, we should expect that in times of economic crisis or slowdown, donor governments' budgets *in general* should be smaller than they were before the crisis. This implication is, in fact, inconsistent with prevailing empirical macroeconomic evidence. The consensus finding is that government spending tends to either run counter to or be unresponsive to business cycles in developed countries (e.g. Gali 1994, Lane 2003, Perotti 2005, Fatás & Mihov 2009, Lee & Sung 2007, Égert 2014). This counter-cyclical policy reflects automatic stabilizers like health spending, unemployment safety net expansion, and the realization of contingency funds, which are ostensibly meant to stimulate economic recovery. Moreover, the discretionary part of spending also tends to be a-cyclical or countercyclical, i.e., it increases or is unresponsive during recessions (e.g. Auerbach 2009, Fatás & Mihov 2009). These findings render a major premise of the implicit economic explanation for the nexus between crises and aid cuts off the mark.

Given that the existing theories of foreign aid and its economic explanatory roots cannot fully address this well established empirical pattern, we turn to domestic politics within donors to develop an argument that can account for these patterns. In particular, we focus on voters and their attitudes toward foreign aid and helping the poor in

In contrast, studies find mixed evidence for the behavior of fiscal policy in developing countries (e.g. Gavin & Perotti 1997, Talvi & Vegh 2005, Alesina, Campante & Tabellini 2008).

# 3 Public Opinion and Foreign Aid during Financial Crises

The policy priorities of responsive politicians often reflect constituents' opinions (see summarily Canes-Wrone 2015). Whereas foreign policy scholars used to deny the applicability of this connection to foreign policy, it is now widely accepted (Aldrich, Gelpi, Feaver, Reifler & Sharp 2006, Baum & Potter 2008). Recent work has begun examining more nuanced arguments about how and when public opinion affects foreign policy (Baum 2012, Dukhong 2013, Whang 2011). While the literature on foreign aid and public opinion has been less abundant compared to other foreign policy instruments such as the use of force or trade policy, existing studies have not only examined the various determinants of voters' preferences for foreign aid, but also demonstrated when and how voters' opinions influence politicians' aid decisions. There are several channels through which public opinion can influence aid policies, but we focus on the most obvious for the general case of democratic donor countries, namely the electoral connection (Aldrich et al. 2006).

We assume that the primary driver of politicians' policy choices in any democracy is the desire to get reelected (Bueno de Mesquita, Smith, Siverson & Morrow 2005). Motivated by incentives to get reelected, politicians are perceptive about and at the same time wary of changes in their constituents' attitudes and opinions. This is particularly the case during economic recessions, as such macroeconomic changes are likely to have serious consequences on voters' financial situations. While actual policies do not perfectly match constituents' opinions (i.e. policy congruence), the literature agrees that policy tends to

On the research on determinants of attitudes toward aid, see Noël & Thérien (2002), Chong & Gradstein (2008), Van Heerde & Hudson (2010), Paxton & Knack (2012), Milner & Tingley (2013), Henson & Lindstrom (2013), and Baker (2015). On the connection between public opinion and aid outcomes, see Milner (2006), Chong & Gradstein (2008), Milner & Tingley (2010), Tingley (2010), Eisensee & Strömberg (2007), Van Belle, Rioux & Potter (2004), Nielsen (2013), and Heinrich (2013).

be responsive: changes tend to follow opinion changes (Canes-Wrone 2015).8

We argue that aid cuts occur during economic crises because politicians respond to changes in public demand to reduce aid. Not only does the scholarly literature leads us to propose this connection, but several prominent recent anecdotes also bolster this view. Politicians in aid donors often cite voters' opinion to push for aid cuts. For example, U.S. Representative Ileana Ros-Lehtinen, speaking after being named Chairman of the House Foreign Affairs Committee in 2011, said that in the prior election "the voters made it clear that if we don't take the correct approach to policy by keeping our economy foremost in our decisions, they're going to ship us all out. Republicans [her party] got the message and are committed to making 'the people's House' work for the people again. [...] I have identified and will propose a number of cuts to the State Department and Foreign Aid budgets."9 In the United Kingdom, speaking about international aid on his trip to India, MP Patrick Mercer said, "I believe most people are tolerant of spending money overseas until it comes to some of the more telling elements of that spending. For instance, many in my constituency would take serious exception to millions of pounds being spent on foreign schools when our own secondary schools are tumbling down around our kids' ears."<sup>10</sup> In both examples, politicians invoke the worsening of the economic situation for voters as a reason for cuts in foreign aid.

While politicians may have electoral incentives to address changes in voters' support for aid, the existing scholarly body of work on foreign aid does not immediately lead us to expect drastic changes in public support for foreign aid during economic crises.

A rich literature in comparative politics investigates variation in democracies and identifies the conditions under which politicians have strong incentives to address constituents' demands. For example, one body of the literature investigates how details in donors' electoral rules may mediate the effects of public opinion on actual policies (e.g. Crisp, Escobar-Lemmon, Jones, Jones & Taylor-Robinson 2004, Heitshusen, Young & Wood 2005, Martin 2010, Mayhew 1974).

Ileana Ros-Lehtinen, "Ros-Lehtinen to Chair House Foreign Affairs Committee in Next Congress," House Committee on Foreign Affairs, http://l.usa.gov/1Kd1saZ, December 8, 2010.

Yorkshire Post, "Patrick Mercer: Foreign aid depends on military still being able to do their job as cuts bite," http://bit.ly/1A5b5VU, February 23, 2013.

Below, we develop our argument by examining well-known biases and perceptions about aid and then derive a hypothesis about how economic crises lead to a decline in voters' support for foreign aid.

# FINANCIAL CRISES, VOTERS' BELIEFS AND SUPPORT FOR AID

We assume that voters make forward-looking, rational calculations when deciding whether to support a certain foreign aid policy. That is, we assume that individuals have beliefs and preferences, which in turn determine their attitudes toward particular policies. Although voters know little about foreign aid policies, voters still hold beliefs (Holsti 1992, Aldrich et al. 2006) which may be far from reality. We argue that it is these differences (i.e., biases) that make aid an easy and politically valuable target for budget cuts during financial crises. By carefully examining what citizens know and believe, we are able to explain why voters want to provide less support for foreign aid. In this section, we develop what voters' beliefs may look like and how these deviate from how scholars think about aid and foreign policies. Specifically, we examine three types of beliefs that are relevant to voters' attitudes toward foreign aid: the tangible benefits from providing foreign aid, how much foreign aid costs, and how many resources are available to the government from which aid is drawn.

We first examine voters' beliefs about the purpose of foreign aid policies. The existing scholarly literature suggests foreign aid provides a number of benefits to the donor public. Governments use aid as a foreign policy instrument to influence other states (Bueno de Mesquita & Smith 2007), boost donor exports (Bearce, Finkel, Pérez-Liñán, Rodríguez-Zepeda & Surzhko-Harned 2013, Hühne, Meyer & Nunnenkamp 2014), improve foreigners' images of one's country (Goldsmith, Horiuchi & Wood 2014), and help combat terrorism and drugs (nowadays) (Azam & Delacroix 2006, Bapat 2011, Boutton & Carter 2013, Bartilow & Eom 2009). While such evidence is strong, some studies on the allocation of aid suggest that more selfless motives also drive governments' deci-

sions on foreign aid, such as concerns for global justice and goals of poverty reduction (Lumsdaine 1993, Hoeffler & Outram 2011, Dietrich 2013, Heinrich 2013).

In general, voters mirror this by not only appreciating the tangible policy concessions that aid may bring (such as international cooperation and trade benefits), but also by enjoying knowing that their government helps the poor elsewhere. While survey evidence appears to support this heterogeneity of preferences, the appreciation of benefits by voters is actually much smaller in importance compared to the norms of helping the poor elsewhere. For example, an Australian survey showed that about 70% of people listed humanitarian motivations as the main reason Australia should provide aid, while the remainder gave self-interested reasons (Australian Government, Department of Foreign Affairs and Trade 2005, Figure 15). Lumsdaine (1993) provides plentiful broader survey results to this end. In a recent survey experiment, Heinrich & Kobayashi (2014) report evidence that appreciation of obtained tangible concessions via foreign aid is very small compared to other considerations. Taken together, the prevailing survey evidence suggests that from voters' perspective, foreign aid is largely a selfless, charitable policy and much less a tool to obtain sought-after policy concessions. Therefore, when a crisis occurs, voters can more easily call for a cut in aid as not many tangible benefits are lost in their view.

Voters must also have some beliefs about the extent of current foreign policy practices to decide whether to continue supporting them. In fact, it is well-known that the general public is quite ignorant about the extent of foreign aid policies. For instance, a 2010 survey reports that the median guess by U.S. survey respondents is that 25% of the U.S. budget goes to foreign aid. Similarly, 26% of British citizens believed U.K. foreign aid outlays ranked in the top three spending items, and more respondents ranked it higher than outlays for pensions.<sup>11</sup> Although cutting back on the aid budget cannot undo bud-

For U.S. and U.K. surveys, see WorldPublicOpinion.org, "American Public Opinion on Foreign Aid," URL:http://bit.ly/1Fwu9c8, November 30, 2010, and Ipsos MORI (2013, Question 17). Further, see Ezra Klein, "The budget myth that just wont die: Americans still think 28 percent of the budget goes

getary problems stemming from a financial crisis, voters' dramatic overstatement of the size of existing aid (together with the belief that aid is mostly charity) ought to lead them to believe that it might contribute.

Last, foreign aid is costly and consumes resources that otherwise could be used for other policies. When deciding whether to support aid policies, voters must also consider how much resources are available to the government to spend on all policies, including foreign aid. Again, voters generally do not have a good idea of how large their government's budget is or how the economy is actually faring (Stevenson & Duch 2013), which in turn influences the budget. Thus, it is important to consider the sources of voters' beliefs about how much resources are expected to be available to spend on various policies. Drawing on the literature on retrospective voting (Lewis-Beck & Stegmaier 2000, Duch & Stevenson 2008), we argue that voters form beliefs based on their evaluations of past personal circumstances. In particular, in forming their beliefs about available resources and the state of the economy, voters rely on their personal financial situations to determine their support for foreign aid. Therefore, recent personal downturns—such as job loss by oneself or one's family member, or negative shocks to investments—would lead a voter to believe that the economy is faring badly.

Taken together, our argument arrives at how these beliefs lead to waning support for foreign aid during an economic crisis. Whereas cutting foreign aid commitments cannot be an integral part of the response to an economic crisis, voters' biased beliefs lead them to believe that it might be or could at least contribute. Once we consider people's beliefs about foreign aid, we can derive a link between financial crises and support for foreign aid. As people believe that aid is largely charitable, downplay or are ignorant of its tangible benefits, and dramatically overestimate its size, we expect voters to provide less support for foreign aid programs when experiencing personal economic distress. Below, we test this hypothesis linking individual support for foreign aid and development

to foreign aid," The Washington Post, URL:http://wapo.st/1Fwuxr3, November 8, 2013.

policy to ones' personal economic situation using recent survey data from the European Union.

# 4 Personal fortunes and support for aid

In our analysis, we link individuals' changes in their personal financial situation to expressed support for foreign aid and development-related policies. We find survey data that asked questions related to the respondent's personal financial situation and about foreign aid in various waves of the widely used Eurobarometer. For our main analyses, we employ data from EB79.4 (2013), EB77.4 (2012), EB76.1 (2011), EB73.5 (2010), and EB71.2 (2009). Although there is a significant overlap across these waves, some of the questions of interest to us are omitted or worded differently. Thus, depending on the availability and compatibility of questions, we pool different waves for separate analyses. For each analysis, we introduce the subset of survey waves that we used.

## 4.1 VARIABLES

We are interested in explaining public support for helping the poor abroad. To this end, we focus on three questions asked in several Eurobarometer waves that let us examine our hypothesis. Details about the exact wording and source for each variable are presented in the web appendix.

The first question asks the respondent whether he or she thinks it is important to help the poor in the developing world. The possible answers to this question include "very important," "fairly important," "not very important," and "not at all important." Based on the respondents' answers, we construct the *Is aid important?* variable. The *Keep promise?* 

Our analyses rely on 27 countries: Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, The Netherlands, Portugal, United Kingdom, Austria, Sweden, Finland, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Bulgaria, and Romania.

question concerns whether the respondent thinks that the European Union should stick to previously made promises to increase development aid even though there has been a financial crisis. The available options are to increase aid beyond the initial promise, to increase in line with the promise, to not increase, and to reduce aid. Our third question asks the respondent about his/her willingness to make personal economic sacrifices to finance development. The text of this *Pay more*? question is "Would you be prepared to pay more for groceries or other products from developing countries to support people living in these countries (for instance for fair trade products)?" The respondent's choices are to be willing to pay more than 10% more, 6-10% more, up to 5% more, and pay no more. Based on these questions, we construct three ordinal dependent variables, all with four levels.

While these three variables are all reflective of respondents' attitudes toward helping the poor abroad, they differ in some important and substantively illuminating aspects. First, the *Is aid important?* variable is different from the other two in that it is about the principle of helping the poor, but does not invoke the idea of payments. It taps directly into the normative dimension of foreign aid (Singer 2010). Second, while both *Keep promise?* and *Pay more?* suggest financial costs from helping the poor, the *Keep promise?* question is less personal, asking about respondents' opinions on the EU's aid but not whether they are willing to spend more. From the respondent's point of view, his/her country pays only a fraction of the costs of EU aid. Therefore, to a large degree, this question involves a consideration of whether to spend others' money. In contrast, the *Pay more?* question clearly prompts the respondent to ponder the personal monetary consequences of helping the poor abroad.

To measure the respondent's evaluation of changes in his/her personal financial situation, we rely on two questions from the Eurobarometer. The first question asks how one's "financial situation" in the *Household* changed compared to five years ago, with respondents choosing among "got worse," "improved," "stayed about the same", and "don't

know." We construct four indicator variables that each take a value of one when the respondent provides each of these answers, and a zero otherwise. We treat the "stayed about the same" variable as a reference category and exclude it from our models. While we prefer this question about one's household situation because of its explicit emphasis on the financial aspect, we also consider another question about one's *Job* situation. While closely linked to the financial situation, its focus is a bit narrower. For example, one can lose a job while still being financially sound because of savings, investments, or a high-income spouse. The possible answers are the same as before, and "stayed about the same" is again our reference category. We use answers to these two questions about one's financial household situation (*Household*) and one's *Job* situation as primary predictors of one's support for foreign aid and development.

We also include a set of control variables related to the basic demographic characteristics of the respondents in our statistical models. First, we control for the age of respondents by creating six dummy variables for six age groups (i.e. 18-24, 25-34, 35-44, 45-54, 55-64, and 65+). In our model, the 18-24 age group is treated as a reference category. Second, we also control for the gender of the respondent by including a variable taking a value of one for female, and zero otherwise. Third, we construct a series of indicator variables for one's self-reported social rank in society ("bottom of bottom", "top of bottom", "middle", "bottom of top", "top of top", "don't know/ refused") with the "bottom of bottom group as a reference category. Fourth, we control for the geography of where the respondent lives using four dummy variables ("large town", "rural area/ village", "small/ middle sized town", and "dont know"), with don't-know serving as the reference category. Finally, a series of variables indicating the type of job that the respondent holds is constructed ("business owner", "employed position", "management", "professional", "retiree/unable to work", "student", "unemployed", and "other"), with the "business owner" category excluded as a reference group. Information on these variables is available for all of our survey waves. If there is a missing value, we code such a response as don't-know for all control variables. For details on the question wording and descriptive statistics, please see the appendix.

## 4.2 STATISTICAL INFERENCE

Our dependent variables are the four levels of support for foreign aid and international development. Since each of these variables is ordinal in nature, we use ordered probit models in which we include our variables capturing the respondents' personal financial situations, random intercepts by country, and dichotomous variables to capture heterogeneity by survey waves. All models are estimated via Markov Chain Monte Carlo (MCMC) methods.

Missing data (i.e., non-responses and refused answers) is always an issue with survey data. When a respondent did not or refused to answer for one of our independent variables, we simply code this as a distinct, separate survey response and include it as a covariate in the model. However, we do not do so for missing values on the dependent variables. We deal with this issue by making use of an elegant feature from the Bayesian approach to inference and its model estimation via MCMC. During the iterative sampling from the posterior distribution, a missing value for the dependent variable can be automatically and naturally imputed from the marginal likelihood of that missing observation (Jackman 2000, Gelman, Carlin, Stern & Rubin 2014). This simplifies the analysis, as no multiple imputations across the entire data sets need to be carried out. Therefore, all our analyses that we report below are marginalized over the missing values on our dependent variables.<sup>13</sup>

Using Hadfield's (2010) MCMCglmm package provided us with fast and efficient estimation of the model parameters. We rely on proper, but largely uninformative prior distributions for the parameters of the model. For each model, we run two chains of 120,000 MCMC iterations, discarding the first 20,000, and then kept every  $4^{th}$  draw. To look for signs of non-convergence, we calculate the Gelman/Rubin/Brooks scale reduction factors ( $\hat{R}$ ) for each parameter in each model. Without exception, they are in the range recommended by Gelman et al. (2014). Details on the convergence diagnostics are available from the authors.

# 4.3 RESULTS

## [TABLE 1 HERE]

Table 1 presents the summaries of the posterior distribution for the parameters for our six main models. The models rely on data from different years. For the analysis of the *Is aid important?* and *Keep promise?* questions, we use EB79.4 (2013), EB77.4 (2012), EB73.5 (2010), and EB71.2 (2009) as data sources. When studying whether respondents are willing to *Pay more?*, we drop EB73.5 (2010) and EB71.2 (2009) as the question was not asked.

Foremost, all coefficient estimates for "got worse" are robustly and sizably negative, regardless of how we measure the personal financial situation and which dependent variable we use. The 95% central credible intervals also do not cross zero. That is, compared to an unchanging past ("stayed the same" as a reference category), when the household financial or job situation "got worse," support for helping the poor abroad drops. Furthermore, the mirror results hold: when personal fortunes "improved," support increases. Taken together, these results provide clear support for our main hypothesis.

Next, we also display substantive effects by comparing predicted probabilities for the different levels of support across the survey questions. We believe that this is important as gleaning the magnitude of the negative effects in Table 1 is difficult in non-linear models, particularly when they include cut-points such as the ordered probit we use (King, Tomz & Wittenberg 2000). Specifically, for each level of each question, we simulate the predicted probabilities that a voter chooses a given level of support when the personal financial situation "improved" and also when it "got worse." <sup>14</sup>

We calculate these predictions by marginalizing out the other covariates (age, gender, etc.) (Gelman & Pardoe 2007, Hanmer & Ozan Kalkan 2013). For each MCMC draw, we randomly draw 1,000 observations from our data set, use these observations' covariates and country memberships, and calculate the predicted probabilities of support for each level of the outcome twice: once under the assumption that the personal financial household situation "got worse", and once under the assumption that it "improved." We then take the median across each of the 1,000 cases. This gives the posterior distribution of predicted probabilities of each level of the outcome under two levels of retrospective evaluation, marginalized over all other used covariates.

#### [FIGURE 1 HERE]

Figure 1 gives the results for the simulated probabilities of support. In the first panel, we plot the possible levels of support from "not at all important" to "very important" on the x-axis, and the summary of the posterior distribution for the predicted probabilities for each respective level on the y-axis. The black dots represent the median of the posterior distribution of the predicted probability when the personal financial situation "improved"; the gray dots do the same for the case when the situation "got worse." The vertical lines depict the respective 95% central credible intervals.

The lowest level of support in the first panel (i.e., those that say that aid is "not at all important") barely changes, as the difference between the gray and black dots is not discernible. The second lowest support level (aid is "not very important") increases slightly when the financial situation "got worse." The third level of support (aid is "fairly important") is the most prominent answer, and it increases somewhat when the situation turns sour. Last, the highest level of support (aid is "very important") is the only one that decreases when the situation becomes worse.

Together, these results provide insights beyond what is readily discernible from the coefficients in Table 1. Household economic crises decrease individuals' support for foreign aid, but the impact is not uniform across support levels. The biggest movement occurs at the higher levels of support for helping the poor. Those with the highest level of support (aid is "very important") endorse the idea of helping less strongly or actually deem it to be just "fairly important" when the household situation "got worse." This suggests that although personal economic crises do little to change the generally positive attitude toward the principle of foreign aid, the most enthusiast support wanes.

We now turn to the middle panel, where we present the simulated results pertaining to the question of whether the EU should keep its previous promise to increase aid. Proposals to either reduce or not increase aid become more popular as the evaluation of the financial household situation worsens. In contrast, support for keeping the promise and increasing EU aid decreases during personal economic crises. Therefore, recent downturns in one's household finances leads one to favor not increasing aid.

Last, we turn to the question about respondents' willingness to pay more for every-day goods in the right panel. The results are the opposite of what we find for the *Is aid important?* variable. When household finances get worse, the unwillingness to pay anything more is the only response to increase, and all responses that entail personal costs decrease.

In sum, we find strong support for our hypothesis that personal economic misfortunes lead to less support for helping the poor abroad, and the finding is robust across our three measures and across two measures of retrospective financial circumstances. Additionally, an interesting pattern emerges beyond what we originally hypothesized. According to our results, the changes for the *Is aid important?* variable due to personal economic crises occur at the highest levels of support. That is, when the question is about the importance of assistance with no mention of its costliness, the public appears to hold on to the basic principle that assistance is "important." When the costliness of such assistance is implied, changes in support are more dramatic. The question on whether the EU ought to keep its promise, the next more costly question, sees changes from support for keeping and increasing promises to an unwillingness to support increases in aid and a willingness to actually reduce aid. Last, for the highest level of implied costliness, changes occur at the lowest level of support, with the least favorable option actually gaining the most support. These patterns of changes suggest that foreign aid becomes less supported as implied costliness increases. This corroborates a finding from a recent survey experiment which shows that respondents are less supportive of aid as its costs increase (Heinrich & Kobayashi 2014) and has important implications for how foreign aid cuts should be managed, which we come back to in the conclusion.

# 5 Crisis, job loss, and support for aid

Our general theoretical argument is about people using their own experiences to learn about the national economy. That is, our theoretical variable is agnostic about the sources of individual fortunes. However, individual financial misfortunes can be caused by events other than economic crises. Following suggestions by reviewers, we also prod whether our results hold when the economic crisis is the specific reason for one's personal financial misfortunes.

We identified two Eurobarometer waves which asked questions about foreign aid as well as about individual experiences from the crisis. In EB71.2 (2009), respondents were asked whether they lost their jobs "as a result of the economic crisis." In EB76.1 (2011), the question was to state whether the respondent lost the job "as a direct consequence of the crisis," "not as a direct consequence of the crisis," or whether the respondent had not experienced job loss at all. As these questions are not quite the same, we analyze the survey waves separately. We have the *Is aid important?* and *Keep promise?* questions for both waves, and *Pay more?* for the 2011 survey. The rest of the model specifications are as before (except for the indicators for the years).

Before examining the results of this analysis, we want to highlight that there is reason to be cautious *a priori*. People, on average, are not great economists (Caplan 2011) so that attributing one's job loss to the crisis might be an issue. It is particularly problematic for the 2009 survey question, which does not allow for a don't-know/refused-to-answer response. Even for people who routinely think about economics, it should be hard to determine whether one's job was lost "as a result of the economic crisis." Fur-

For simplicity, we collapsed the response that no job loss occurred and that one happened, but that it was unrelated to the crisis into one response, which serves as the reference category.

We see some evidence in the raw data that the 2009 survey question about crisis-induced job loss might be of questionable quality. Roughly 10% of the respondents said "yes" – that they lost their jobs "as a result of the economic crisis." However, in 2009 only four countries in our sample (Spain, Estonia, Slovak Republic, and Ireland) had unemployment rates greater than 10% (by ILO as well as by national estimates), of which 10–40% are long-term unemployment, depending on the country. Data come from WorldBank (2015).

ther, our theoretical concept is broader than just job loss. While losing one's job should be tied to one's financial situation, it is not the only event through which economic crises affect one's financial situations. Our previous analyses show this has some important influences on the results when compared to those when we use a variable that captures a broader financial household situation. In Table 1, we see that the negative reactions when the financial household situation "got worse" are stronger than when the personal job situation does.<sup>17</sup> Therefore, we should expect more muted responses.

#### [TABLE 2 HERE]

The results of this analysis are presented in Table 2. Our evidence is largely consistent with the previous results, although not perfectly so. Our 2011 estimates for respondents with crisis-induced job loss are comparable with those from our main analysis in Table 1: they are robustly negative and on a roughly similar magnitude, as judged by the coefficient size of the "got worse" estimates. The 2009 estimates provide mixed support. On the question about *Is aid important?*, the median estimate is small and negative, and the 95% central credible interval spans zero. For the *Keep promise?* response, the median effect is again negative as expected, but the upper bound of the 95% credible interval touches zero (when rounding using three digits behind the decimal point). While we would expect weaker reactions on the *Is aid important?* question, the small, negative effect together with the credible interval covering zero is not expected. However, taken together, it is reassuring as a whole that the results are broadly pointing in the right direction, despite the caveats we raised earlier.

# 6 United Kingdom's "ring-fencing"

So far, we have shown that downturns in people's personal fortunes lead to considerably less support for foreign aid, and that similar effects broadly hold if we restrict attention

The difference is indistinguishable for the *Is aid important?* question.

to self-reported crisis-induced job loss. We argued that politicians in democratic donors tend to react to such changes in voters' attitudes, highlighting the role of public opinion in how aid decisions are made during economic crises.

In the recent financial and Eurozone crises, one case stands prominently apart from the others, as well as with respect to our arguments. The case of the United Kingdom has politicians taking a deliberate step to "ring-fence" foreign aid—i.e. to exempt it from considerations to cut it, which seems to be at odds with the arguments we develop here. Despite some evidence that a majority of Britons did not support such ring-fencing of foreign aid, during the 2010 general election campaign, politicians from the United Kingdom's major parties took a consolidated stance on protecting foreign aid from seemingly inevitable budget cuts, and publicly supported meeting Britain's commitment to spend 0.7% of GDP on international development by 2013. The parties emphasized the moral duty of helping the world's poor as well as the ability of aid to contribute to Britain's security by creating more stable and effective states. 20

After the election, foreign aid was protected under the coalition government formed between the Conservatives and the Liberal Democrats. Although some members of the Conservative party challenged the government's decision to protect aid,<sup>21</sup> Prime Minister David Cameron remained committed to meeting the 0.7% spending target,<sup>22</sup> and both Cameron and Andrew Mitchell, Secretary of State for International Development, framed the decision to protect the aid budget as a moral one and one that was in the British

We thank a reviewer for putting this into the context of our article.

Mark Tran, "Britons think development aid for poor countries is wasted," *The Guardian*, URL: http://bit.ly/1F1gIB6, September 8, 2010.

See Department for International Development, "Eliminating World Poverty: Building our Common Future," URL: http://bit.ly/1Fdk0TX, 2009; Policy Green Paper No. 11, "One World Conservatism: A Conservative Agenda for International Development," URL: http://betterfutu.re/1PomZ45, 2009.

Press Association, "Liam Fox challenges Camerons overseas aid pledge," *The Guardian*, URL: http://bit.ly/1PonkUn, May 17, 2011.

Press Association, "Overseas aid targets 'will be made law', insists government," *The Guardian*, URL: http://bit.ly/1cEkTLw, May 17, 2011.

## national interest.<sup>23</sup>

The case garnered so much attention precisely because it seems to be quite an aberration. In other countries like the United States, politicians fought hard to cut foreign aid. Nevertheless, this case highlights the active role that politicians played in the aid debates, indicating the possible influence of elite opinions on public attitudes toward aid. In fact, the effects of elite messages on voters' attitudes toward policies have long been the subject of debate in political science. As we have argued above, people are not experts on foreign aid and should thus form their opinions using cues from the media, politicians, celebrities, and other elites (Zaller 1990, Zaller & Feldman 1992, Zaller 1992, Lodge, Steenbergen & Brau 1995, Baum 2002, Baum & Jamison 2006). The British case is remarkable in that elites actually agreed on the "ring-fencing" idea, so that the average citizen was bound to predominantly hear messages against cutting aid. From this perspective, the British case allows us to address whether such elite messaging can weaken the reaction of citizens when their financial situation "got worse." 24

Before introducing how we assess this possibility, some words of caution are warranted. Although political scientists are generally in agreement about messaging effects (often as shown in research labs), it is difficult to show credible evidence from observational data (e.g. Bartels 1993, Gabel & Scheve 2007). For example, research in American politics has struggled to find convincing evidence for causal effects of political campaigns due to omitted variable bias, which stems from elites and citizens responding to the same

David Cameron, "David Cameron: Why we're right to ringfence the aid budget," *The Guardian*, URL: http://bit.ly/1KSnDA9, June 11, 2011; Larry Elliot, "Andrew Mitchell defends higher British spending on aid as a moral duty," *The Guardian*, URL: http://bit.ly/1e5K7TX, June 8, 2011.

It is worth noting that in a recent article, using data from the U.K. Public Opinion Monitor, Henson & Lindstrom (2013) report a finding that changes in individuals' financial circumstances have no influence on their support for foreign aid. While this finding is consistent with the claim that elite messaging weakened individuals' negative reaction to foreign aid due to their financial circumstances, their evidence needs to be interpreted with caution. In particular, their results suffer from a post-treatment bias as they include a number of individuals' views and attitudes toward aid and development, which are likely due to the consequences of one's financial changes. Conditioning on such variables obscures the causal effects of individuals' financial situations in ways that are difficult to assess *a priori* (King & Zeng 2006).

unobserved stimulus, and an endogeneity problem caused by elites' strategic considerations (elites anticipate the public's reaction, and thus make certain claims).

With these caveats in mind, we try to locate such messaging effects in our survey data. We are guided by the idea that if British elites influenced public support for aid, survey responses in Britain should be different from those in the rest of the countries in our data, particularly when such respondents' personal situations "got worse." This is not a perfect test; however, we believe that a comparison of the British case to others is justified given how unique the British case was. To this end, we reestimated the models in our *Household* specifications from Table 1 while allowing not only the intercept to vary by country, but also letting each country have its own coefficients on the levels of financial situation of the household. This thus constitutes a random-intercept, random-slope ordered probit (Gelman & Hill 2006). Such country-specific random slopes let us see whether Britons' reactions when the personal situation "got worse" is different from the reactions by each of the other countries in our sample.

If elite messaging is effective and it most prominently and strongly occurred in the United Kingdom, then the British survey-takers' reaction should be among the weakest. That is, we expect the least negative slopes on the "got worse" response for the United Kingdom. Since we estimate the parameters via MCMC, we obtain a full distribution of such slope estimates for each country. To get an estimate of how different the British slope is compared to all the others', we rank-order the sizes of all 27 random slopes at every iteration of the MCMC in terms of how close the slopes are to zero, and then save the United Kingdom's ranks. Ranking is advantageous because of their natural interpretation. If the story about elite messaging is correct, we should see the ranks for the United

Since the "ring-fencing" idea did not become adopted until 2010, we dropped EB71.2 (2009) from this sample. Other than that, this analysis is the same the ones we reported in columns one, three, and five in Table 1.

The coefficient estimates are presented in Section B. Based on the results, the estimated slopes for the U.K. are negative across the three dependent variables: -0.17(-0.29, -0.05) for *Is aid important*?, -0.22(-0.32, -0.11) for *Keep promise*?, and -0.24(-0.36, -0.1) for *Pay more*?.

Kingdom to be among the top ranks.

Consider first the upper panel in Figure 2. Under each of our three models, we calculated the posterior probability<sup>27</sup> of the United Kingdom's random slope for "got worse" taking on each rank. For the *Is aid important?* graph, the possible ranks are along the x-axis, and the y-axis shows the posterior probability for each rank. On the question of whether aid is important, the British reaction is among the bottom third. That is, a Brit that says that the financial situation in the household "got worse" reacts more strongly and more negatively than about three-fourths of the rest of the Europeans. This is at odds with the idea that the messaging by British politicians dampened the reaction to a worsening of the personal situation.

### [FIGURE 2 HERE]

Looking now at the posterior probabilities for the British ranks for the *Keep promise?* and *Pay more?* dependent variables, Britain is moving up. It occupies the middle ranks for the former, and its modal estimate is the fifth rank for the latter. While this is different from the previous estimate, the responses by the British are remarkably ordinary overall.

In the bottom panel, we considered the British random slope only among the top five EU donors and their slopes (Britain, Germany, France, Sweden, and Netherlands). The result mirrors those from the other analysis: British citizens, despite the unified messaging by elites, react quite like the average top five donors' citizens to their worsened personal circumstances.

Taken together, we see little obvious evidence that British citizens reacted very differently from the rest of Europeans. We take this as suggestive that that British politicians' stance on protecting aid from cuts had little influence on public opinion. Furthermore, this evidence provides an interesting question for future research: why did the U.K. politicians unite to protect aid despite the fact that it was electorally costly? In the

The posterior probability is simply the number of MCMC draws that had a particular rank divided by the total number of iterations.

conclusion, we also draw some implications from this evidence for how aid advocates may prevent aid cuts during economic recessions.

# 7 Conclusion

The recent financial crises have led to concerns about donors' willingness to give aid. While we know empirically that aid flows are sensitive to economic crises in donor countries, prior research has rarely gone beyond the empirics. In this paper, we drew on insights from several bodies of study and developed a causal mechanism behind the economic crisis-aid nexus by focusing on public opinion as a source of aid cuts. We argued that foreign aid becomes unpopular and an easy target for politicians because voters tend to believe foreign aid is a form of charity and overestimate current aid levels. The results from our analysis of Eurobarometer data consistently support the hypothesis that individual pessimistic perceptions of the economy lead to less support for helping the poor abroad. Moreover, the evidence suggests that the implied costliness of providing support matters. For example, when asked about support for helping the poor in principle, we find that respondents withdraw their support less than when asked about EU aid or their willingness to pay out of their own pockets.

Our study provides several implications for how to prevent donor countries from cutting aid commitments. First, evidence that voters care about the costliness of aid policies implies that multilateral aid may be less sensitive to economic crises because voters seem to see such aid as less costly. This suggests that one effective way to prevent aid cuts may be to encourage sending aid through international financial institutions and multilateral development agencies.

Second, our findings suggest that the key to preventing aid cuts is voters, but exactly how to stop their negative reactions to aid giving during economic crises still needs to be uncovered. Our central finding suggests that voters within donors play an important

role. It would thus be tempting to conclude that aid practitioners and international organizations should target their efforts on voters during economic crises. However, the British case (weakly) suggests that politicians' stances on protecting aid did not have a noticeable effect on citizens' reactions to the crisis. While we should not draw hasty conclusions from this finding, partly because it is difficult to determine the causal effect of elite messaging using purely observational data, the British case brings into question the ability of elite messaging to change voters' attitudes toward aid.

This does not necessarily suggest that any type of messages will be effective, however. One important avenue for future research is to investigate the efficacy of different types of messages. Previous experimental studies on the efficiency of different messages at getting people to donate to charities can provide a starting point for research on aid messages and public opinion. These studies have found that certain types of messages and strategies are more likely to increase charitable giving than others (Fetherstonhaugh, Slovic, Johnson & Friedrich 1997, Small & Loewenstein 2003, Slovic 2007, Small, Loewenstein & Slovic 2007). Similarly, in political science, studies have investigated the effectiveness of various getout-the-vote campaigns (e.g. Gerber & Green 2000) using field experiments. Drawing on insights from these bodies of literature, future studies should look at different aspects of messages and how they can affect voters' opinions on aid cuts during economic crises.

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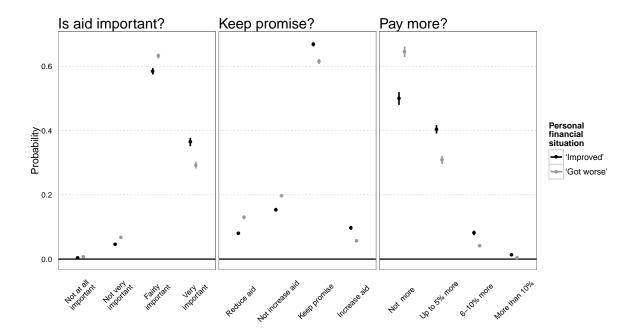
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**Table 1: Support for foreign aid.** EB79.4 (2013), EB77.4 (2012), EB73.5 (2010), and EB71.2 (2009) are used for the first four models; EB79.4 (2013), EB77.4 (2012), and EB71.2 (2009) for the last two models. 95% central credible intervals are presented in parentheses. Another cutpoint is at zero by design.

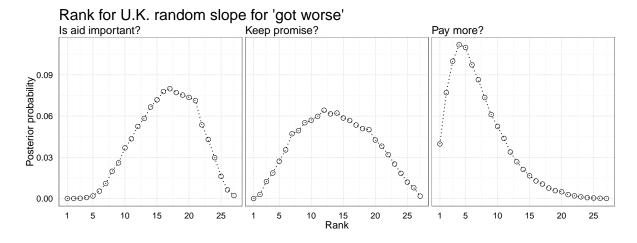
	Is aid important?		Keep promise?		Pay more?	
	Household	Job	Household	Job	Household	Job
Financial situation						
Got worse	-0.115	-0.132	-0.215	-0.112	-0.325	-0.206
Improved	(-0.139, -0.093) 0.104	(-0.156, -0.107) 0.14	(-0.238, -0.192) 0.087	(-0.137, -0.088) 0.14	(-0.361, -0.288) 0.15	(-0.245, -0.168) 0.184
Improved	(0.074, 0.135)	(0.109, 0.17)	(0.057, 0.117)	(0.11, 0.17)	(0.105, 0.194)	(0.14, 0.229)
DK	-0.094	-0.076	-0.102	-0.045	-0.203	-0.13
	(-0.187, -0.001)	(-0.166, 0.015)	(-0.195, -0.006)	(-0.14, 0.051)	(-0.352, -0.056)	(-0.276, 0.015)
Gender: female	0.175	0.17	0.012	0.006	0.031	0.021
	(0.155, 0.195)	(0.151, 0.19)	(-0.008, 0.032)	(-0.014, 0.025)	(0, 0.061)	(-0.008, 0.052)
Age: 25-34	-0.074	-0.066	-0.111	-0.108	0.011	0.018
A 2E 44	(-0.122, -0.026)	(-0.113, -0.018)	(-0.157, -0.063)	(-0.154, -0.06)	(-0.062, 0.085)	(-0.055, 0.09)
Age: 35-44	-0.131 (-0.179, -0.083)	-0.12 (-0.169, -0.072)	-0.146 (-0.193, -0.098)	-0.145 (-0.193, -0.097)	0.007 (-0.068, 0.083)	0.007 (-0.068, 0.081)
Age: 45-54	-0.162	-0.149	-0.188	-0.186	-0.012	-0.011
Ü	(-0.21, -0.113)	(-0.198, -0.101)	(-0.236, -0.14)	(-0.234, -0.137)	(-0.087, 0.063)	(-0.086, 0.065)
Age: 55-64	-0.132	-0.121	-0.17	-0.168	-0.009	-0.011
A : (F -	(-0.183, -0.081)	(-0.173, -0.07)	(-0.221, -0.119)	(-0.219, -0.119)	(-0.088, 0.07)	(-0.093, 0.068)
Age: 65+	-0.196 (-0.253, -0.139)	-0.191 (-0.248, -0.134)	-0.249 (-0.305, -0.194)	-0.242 (-0.297, -0.184)	-0.159 (-0.247, -0.071)	-0.159 (-0.248, -0.071)
SR: top of bottom	0.097	0.1	0.14	0.152	0.314	0.331
	(0.042, 0.151)	(0.046, 0.156)	(0.083, 0.195)	(0.096, 0.209)	(0.209, 0.416)	(0.229, 0.435)
SR: middle	0.196	0.207	0.251	0.288	0.591	0.64
SR: bottom of top	(0.143, 0.249) 0.291	(0.153, 0.26) 0.306	(0.195, 0.305) 0.355	(0.232, 0.342) 0.405	(0.49, 0.691) 0.772	(0.543, 0.742) 0.842
SK: bottom of top	(0.234, 0.348)	(0.25, 0.363)	(0.296, 0.412)	(0.348, 0.463)	(0.667, 0.875)	(0.738, 0.945)
SR: top of top	0.327	0.341	0.413	0.464	0.796	0.859
1 1	(0.24, 0.414)	(0.254, 0.429)	(0.327, 0.5)	(0.379, 0.55)	(0.658, 0.934)	(0.721, 0.998)
SR: DK/ refused	0.153	0.161	0.133	0.168	0.461	0.508
Living: large town	(0.074, 0.231) 0.136	(0.083, 0.239)	(0.052, 0.213)	(0.085, 0.248)	(0.323, 0.6) -0.191	(0.372, 0.646) -0.208
Living: large town	(-0.159, 0.42)	0.136 (-0.153, 0.421)	0.276 (-0.012, 0.564)	0.278 (-0.005, 0.565)	(-0.718, 0.351)	(-0.735, 0.337)
Living: rural area/village	0.026	0.027	0.148	0.155	-0.356	-0.367
	(-0.27, 0.309)	(-0.261, 0.313)	(-0.139, 0.435)	(-0.127, 0.443)	(-0.886, 0.186)	(-0.892, 0.176)
Living: small/ middle town	0.085	0.087	0.201	0.206	-0.278	-0.29
Job: employed position	(-0.209, 0.368) 0.109	(-0.201, 0.374) 0.103	(-0.087, 0.488) 0.093	(-0.076, 0.495) 0.09	(-0.806, 0.261) -0.034	(-0.816, 0.254) -0.041
Job. employed position	(0.058, 0.16)	(0.053, 0.154)	(0.043, 0.143)	(0.04, 0.141)	(-0.108, 0.041)	(-0.117, 0.035)
Job: management	0.306	0.299	0.272	0.274	0.224	0.225
	(0.247, 0.364)	(0.241, 0.357)	(0.215, 0.328)	(0.217, 0.331)	(0.139, 0.309)	(0.14, 0.311)
Job: professional	0.34	0.333	0.286	0.285	0.353	0.351
Job: retiree	(0.271, 0.406) 0.076	(0.265, 0.398) 0.065	(0.22, 0.351) 0.03	(0.22, 0.351) 0.012	(0.257, 0.45) -0.179	(0.254, 0.447) -0.212
job. retiree	(0.02, 0.133)	(0.009, 0.12)	(-0.025, 0.085)	(-0.045, 0.067)	(-0.262, -0.095)	(-0.296, -0.127)
Job: student	0.345	0.34	0.298	0.296	0.253	0.23
	(0.277, 0.414)	(0.271, 0.409)	(0.23, 0.366)	(0.228, 0.364)	(0.15, 0.354)	(0.125, 0.335)
Job: unemployed	0.071 (0.013, 0.129)	0.095 (0.037, 0.152)	0.002 (-0.054, 0.06)	-0.002 (-0.06, 0.056)	-0.28 (-0.367, -0.192)	-0.284 (-0.371, -0.194)
Job: other	0.012	0.009	0.014	0.009	-0.329	-0.342
job. outer	(-0.038, 0.063)	(-0.04, 0.06)	(-0.035, 0.064)	(-0.042, 0.059)	(-0.404, -0.252)	(-0.417, -0.266)
Year: 2010	0.223	0.222	-0.481	-0.484		
V 2012	(0.196, 0.251)	(0.195, 0.249)	(-0.509, -0.453)	(-0.512, -0.457)		
Year: 2012	-0.109 (-0.136, -0.081)	-0.111 (-0.138, -0.083)	-0.663 (-0.691, -0.635)	-0.67 (-0.697, -0.642)		
Year: 2013	-0.337	-0.339	-0.657	-0.662	0.141	0.143
Teur. 2010	(-0.364, -0.31)	(-0.366, -0.311)	(-0.684, -0.629)	(-0.69, -0.634)	(0.111, 0.17)	(0.114, 0.173)
Intercept	2.524	2.498	1.52	1.425	-0.358	-0.459
Code sind 1	(2.198, 2.86)	(2.171, 2.822)	(1.199, 1.838)	(1.107, 1.739)	(-0.971, 0.245)	(-1.079, 0.148)
Cutpoint 1	1.107 (1.087, 1.127)	1.107 (1.088, 1.127)	0.735 (0.725, 0.746)	0.734 (0.723, 0.745)	1.665 (1.642, 1.687)	1.659 (1.636, 1.682)
Cutpoint 2	3.278	3.278	2.941	2.936	2.766	2.758
- · · T · · · · · ·	(3.254, 3.301)	(3.256, 3.302)	(2.923, 2.958)	(2.918, 2.955)	(2.731, 2.801)	(2.723, 2.793)
Var: intercept	0.132	0.132	0.073	0.073	0.398	0.416
	(0.079, 0.242)	(0.079, 0.238)	(0.044, 0.135)	(0.044, 0.134)	(0.24, 0.736)	(0.25, 0.758)
Observations	105538	105538	105538	105538	52694	52694
	103330	103336	100000	27	J2074	J407 <del>4</del>

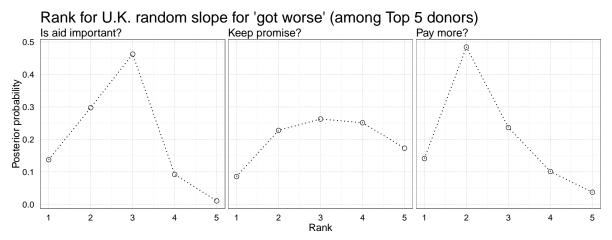


**Figure 1: Probability for levels of support by change in financial household situation.** Each dot denotes the median posterior estimate, and the vertical lines the 95% central credible interval. Grey dots and lines denote the probabilities when the financial situation "got worse", and the black counterparts when it "improved."

**Table 2: Support for foreign aid when crisis led to job loss.** EB76.1 (2011) and EB71.2 (2009) are used. 95% credible intervals are presented in parentheses. Another cutpoint is at zero by design. (a) and (b) distinguish the slightly different wording and response options in the questions.

	Is aid important?		Keep promise?		Pay more?	
	2009	2011	2009	2011	2011	
Job loss						
Due to crisis (a)	-0.017 (-0.098, 0.064)		-0.081 (-0.162, 0)			
Due to crisis (b)		-0.066 (-0.13, -0.004)		-0.118 (-0.18, -0.056)	-0.216 (-0.287, -0.146)	
DK/ refused		0.024 (-0.034, 0.082)		-0.053 (-0.11, 0.004)	-0.159 (-0.22, -0.096)	
Gender: female	0.207 (0.167, 0.248)	0.136 (0.097, 0.176)	0.036 (-0.005, 0.076)	0.05 (0.011, 0.09)	-0.011 (-0.053, 0.031)	
Age: 25-34	-0.156	-0.067	-0.158	-0.136	0.027	
Age: 35-44	(-0.25, -0.064) -0.217	(-0.163, 0.029) -0.061	(-0.251, -0.064) -0.208	(-0.23, -0.042) -0.2	(-0.076, 0.128) -0.014	
Age: 45-54	(-0.312, -0.123) -0.247	(-0.158, 0.035) -0.055	(-0.304, -0.112) -0.204	(-0.293, -0.104) -0.214	(-0.116, 0.09) -0.01	
Age: 55-64	(-0.341, -0.15) -0.2	(-0.151, 0.041) -0.062	(-0.3, -0.108) -0.209	(-0.309, -0.119) -0.234	(-0.114, 0.095) -0.052	
Age: 65+	(-0.299, -0.101) -0.254	(-0.162, 0.038) -0.093	(-0.308, -0.109) -0.259	(-0.332, -0.135) -0.279	(-0.159, 0.055) -0.212	
SR: top of bottom	(-0.364, -0.144) 0.032	(-0.203, 0.019) 0.15	(-0.373, -0.146) 0.141	(-0.387, -0.167) 0.254	(-0.332, -0.092) 0.364	
SR: middle	(-0.075, 0.139) 0.144	(0.041, 0.261) 0.212	(0.026, 0.255) 0.239	(0.144, 0.364) 0.317	(0.23, 0.5) 0.63	
SR: bottom of top	(0.041, 0.246) 0.248	(0.105, 0.32) 0.26	(0.129, 0.348) 0.328	(0.209, 0.426) 0.406	(0.499, 0.762) 0.811	
SR: top of top	(0.139, 0.357) 0.294	(0.146, 0.376) 0.255	(0.213, 0.444) 0.355	(0.291, 0.522) 0.314	(0.674, 0.949) 0.736	
SR: DK/ refused	(0.123, 0.464) 0.127	(0.083, 0.426) 0.096	(0.181, 0.528) 0.231	(0.144, 0.485) 0.195	(0.548, 0.922) 0.44	
Living: large town	(-0.019, 0.27) 0.07	(-0.06, 0.252) 0.471	(0.076, 0.388) 0.096	(0.037, 0.356) 0.143	(0.261, 0.622) 0.59	
Living: rural area/village	(-0.41, 0.536) -0.036	(-0.186, 1.118) 0.342	(-0.369, 0.568) -0.046	(-0.507, 0.798) -0.014	(-0.23, 1.453) 0.516	
Living: small/ middle town	(-0.516, 0.431) 0.049	(-0.312, 0.99) 0.356	(-0.509, 0.425) 0.004	(-0.662, 0.638) -0.007	(-0.304, 1.381) 0.476	
Job: employed position	(-0.433, 0.514) 0.091	(-0.299, 1.001) 0.063	(-0.461, 0.472) 0.043	(-0.655, 0.647) 0.098	(-0.346, 1.334) -0.085	
Job: management	(-0.011, 0.191) 0.38	(-0.04, 0.166) 0.323	(-0.059, 0.144) 0.277	(-0.005, 0.201) 0.355	(-0.192, 0.022) 0.362	
Job: professional	(0.266, 0.498) 0.422	(0.203, 0.44) 0.316	(0.163, 0.393) 0.258	(0.24, 0.472) 0.286	(0.244, 0.48) 0.438	
Job: retiree	(0.288, 0.554) 0.04	(0.18, 0.453) 0.008	(0.122, 0.389) -0.106	(0.15, 0.42) 0.023	(0.301, 0.575) -0.142	
Job: student	(-0.072, 0.151) 0.324	(-0.106, 0.12) 0.312	(-0.219, 0.005) 0.149	(-0.088, 0.136) 0.239	(-0.26, -0.025) 0.27	
Job: unemployed	(0.187, 0.46) 0.032	(0.174, 0.451) 0.043	(0.014, 0.286) -0.109	(0.1, 0.377) 0.03	(0.125, 0.413) -0.285	
Job: other	(-0.092, 0.156) -0.038	(-0.075, 0.161) -0.096	(-0.233, 0.017) -0.062	(-0.089, 0.148) -0.011	(-0.411, -0.159) -0.367	
Intercept	(-0.138, 0.06) 2.734	(-0.198, 0.005) 2.053	(-0.165, 0.038) 1.569	(-0.113, 0.091) 0.994	(-0.477, -0.26) -1.033	
Cutpoint 1	(2.228, 3.251) 1.132	(1.361, 2.748) 1.047	(1.051, 2.089) 0.516	(0.321, 1.665) 0.733	(-1.95, -0.17) 1.679	
Cutpoint 2	(1.089, 1.177) 3.358 (3.309, 3.408)	(1.01, 1.084) 3.207 (3.163, 3.253)	(0.496, 0.536) 2.66 (2.626, 2.694)	(0.713, 0.754) 3.048 (3.012, 3.085)	(1.648, 1.71) 2.801 (2.753, 2.849)	
Var: intercept	0.122	(3.163, 3.253)	0.167	0.121	0.406	
	(0.072, 0.226)	(0.146, 0.447)	(0.1, 0.309)	(0.072, 0.223)	(0.246, 0.749)	
Observations Countries	26454 27	26549 27	26454 27	26549 27	26549 27	





**Figure 2: Probabilities for ranks of U.K. random slopes.** Using full distributions of random slopes for all countries (upper panel) and only the top five donors (bottom panel), we calculate ranks of the U.K. random slopes from the smallest to the largest. Along the x-axis are the possible ranks, and the y-axis depicts the posterior probability that each rank is realized.

Public Opinion and Foreign Aid Cuts in Economic Crises	
Web Appendix Not for Print Publication	

## A Survey: Question wordings

*Is aid Important?* The question is, "In your opinion, is it very important, fairly important, not very important or not at all important to help people in developing countries?". The response options are "Very important", "Fairly important", "Not very important," "Not at all important," and "Don't know."

Keep promise? The verbiage is, "The European Union has promised to increase the level of its aid towards developing countries. Given the current economic situation, which of the following propositions best describes your opinion?" The options are "We should increase European aid to developing countries beyond what is already promised," "We should keep our promise to developing countries," "We should not increase the levels of aid to developing countries even though it has been promised," "We should reduce aid to developing countries as we can no longer afford it," and "Don't know."

Pay more? The question is, "Would you be prepared to pay more for groceries or other products from developing countries to support people living in these countries (for instance for fair trade products)?" Respondents could choose whether they were "not ready to pay more," "be ready to pay up to five percent more," "be ready to pay six to ten percent more," "be ready to pay more than ten percent more," or "don't know."

Financial situation In the surveys, respondents were asked, "compared with five years ago, would you say things have improved, gotten worse or stayed about the same" with respect to several areas. We focus on personal changes; specifically, we use questions about changes in the respondents' the "financial situation in your house-

hold" and "personal job situation." The possible answers include "Improved," "Got worse," "Stayed about the same," and "Don't know."

Job Loss In EB76.1 (2011), respondents were asked, "Here are some situations that could have arisen recently in your working life or in the working life of those around you. For each of them, please tell me if this has happened as a direct consequence of the crisis, if it has happened but was not a direct consequence of the crisis, or if it has not happened at all." One situation was "You have lost your job [or] your partner (husband or wife, partner, etc.) has lost his [or] her job." The response options were "Yes, as a direct consequence of the crisis", "Yes but not as a direct consequence of the crisis", "No, it has not happened at all," or "Don't know." In EB71.2 (2009), one question asked "Please tell me whether or not each of the following situations has happened to you, as a result of the economic crisis." One situation was "You lost your job." The possible answers were "Yes" or "No."

**Age** The possible levels are: 15-24, 25-34, 35-44, 45-54, 55-64, and 65+.

**Gender** The variable takes on "male" and "female."

**Social rank** The question is: "on the following scale, step '1' corresponds to "the lowest level in the society"; step '10' corresponds to 'the highest level in the society'. Could you tell me on which step you would place yourself?" We coarsened the responses into group one and two "bottom of bottom", three and four as "top of bottom", five and six as "middle", seven and eight as "bottom of top", and nine and ten as "top of top." We also code a dummy for don't-know and missing responses.

**Living** The question is, "Would you say you live in a ...?", which has the following possible answers: "rural area of small village", "small or middle sized town", and "large town." Don't-know and missing responses are coded separately.

Job The question asked, "Did you do any paid work in the past? What was your last oc-

cupation?" We used the responses listed under "current occupation", coarsening responses somewhat. We are using the following levels: "employed position," "management," "professional," "retiree," "student," "unemployed," and then "other".

## B Regression Table: Random-slope Ordered Probit

**Table 3: Support for foreign aid, random effects model.** The *Household* variable was used to measure the personal financial situation. EB79.4 (2013), EB77.4 (2012), and EB73.5 (2010) are used for the first two models; EB79.4 (2013) and EB77.4 (2012) for the last model. 95% central credible intervals are presented in parentheses. Another cutpoint is at zero by design.

	Is aid important?	Keep promise?	Pay more?
Financial situation (Household) Got worse	-0.125	-0.212	-0.324
Got worse	-0.125 (-0.19, -0.06)	-0.212 (-0.264, -0.16)	(-0.385, -0.265)
Improved	0.105	0.092	0.183
DK	(0.034, 0.179) -0.1	(0.028, 0.159) -0.093	(0.09, 0.278) -0.184
DK	(-0.233, 0.03)	(-0.225, 0.038)	(-0.347, -0.012)
Gender: female	0.162	0.001	0.03
Gender: Temale	(0.14, 0.185)	(-0.022, 0.023)	(0.001, 0.06)
Age: 25-34	-0.042	-0.101	0.01
Age: 35-44	(-0.098, 0.014) -0.104	(-0.156, -0.045) -0.136	(-0.063, 0.085) 0.008
Age. 55-44	(-0.16, -0.046)	(-0.193, -0.08)	(-0.066, 0.086)
Age: 45-54	-0.139	-0.205	-0.01
Age: 55-64	(-0.196, -0.082) -0.12	(-0.261, -0.149) -0.181	(-0.086, 0.066) -0.008
	(-0.179, -0.061)	(-0.24, -0.122)	(-0.086, 0.073)
Age: 65+	-0.19 (-0.256, -0.122)	-0.269 (-0.334, -0.203)	-0.159 (-0.247, -0.069)
SR: top of bottom	0.125	0.158	0.313
on 1111	(0.06, 0.19)	(0.094, 0.223)	(0.21, 0.416)
SR: middle	0.221 (0.158, 0.282)	0.279 (0.216, 0.343)	0.581 (0.482, 0.682)
SR: bottom of top	0.313	0.386	0.761
SR: top of top	(0.245, 0.378) 0.346	(0.319, 0.454) 0.449	(0.658, 0.866) 0.775
SK: top of top	(0.245, 0.448)	(0.351, 0.549)	(0.635, 0.916)
SR: DK/ refused	0.16	0.106	0.452
Living: large town	(0.066, 0.254) 0.215	(0.014, 0.202) 0.343	(0.317, 0.589) -0.196
	(-0.157, 0.584)	(-0.023, 0.709)	(-0.727, 0.343)
Living: rural area/village	0.101 (-0.267, 0.47)	0.223 (-0.142, 0.589)	-0.361 (-0.891, 0.178)
Living: small/ middle town	0.15	0.261	-0.284
	(-0.217, 0.521)	(-0.104, 0.628)	(-0.813, 0.258)
Job: employed position	0.119 (0.059, 0.18)	0.11 (0.053, 0.168)	-0.027 (-0.105, 0.048)
Job: management	0.288	0.285	0.233
Job: professional	(0.22, 0.355) 0.32	(0.22, 0.352) 0.306	(0.147, 0.319) 0.359
•	(0.242, 0.398)	(0.229, 0.381)	(0.26, 0.457)
Job: retiree	0.082 (0.017, 0.148)	0.065 (0.001, 0.13)	-0.179 (-0.262, -0.095)
Job: student	0.35	0.338	0.254
	(0.269, 0.432)	(0.261, 0.418)	(0.148, 0.357)
Job: unemployed	0.076 (0.01, 0.144)	0.039 (-0.026, 0.106)	-0.278 (-0.368, -0.19)
Job: other	0.024	0.029	-0.326
Year: 2012	(-0.035, 0.083) -0.333	(-0.028, 0.088) -0.186	(-0.403, -0.25)
	(-0.361, -0.306)	(-0.214, -0.159)	
Year: 2013	-0.558	-0.178	0.14
Intercept	(-0.586, -0.53) 2.629	(-0.206, -0.151) 0.983	(0.11, 0.169) -0.346
·	(2.218, 3.041)	(0.586, 1.374)	(-0.959, 0.261)
Cutpoint 1	1.107 (1.084, 1.129)	0.795 (0.782, 0.807)	1.666 (1.643, 1.688)
Cutpoint 2	3.269	3.044	2.767
Van intercent	(3.242, 3.296)	(3.023, 3.064)	(2.732, 2.802) 0.473
Var: intercept	0.183 (0.106, 0.356)	0.089 (0.051, 0.171)	(0.278, 0.909)
Var: coefficient on 'Got Worse'	0.022	0.012	0.014
Var: coefficient on 'Improved'	(0.011, 0.046) 0.024	(0.005, 0.028) 0.018	(0.004, 0.038) 0.04
•	(0.01, 0.056)	(0.007, 0.043)	(0.017, 0.092)
Var: coefficient on 'DK'	0.026	0.021	0.022
	(0.003, 0.108)	(0.002, 0.098)	(0.002, 0.117)
Observations	79084	79084	52694
Countries	27	27	27

## C Summary Statistics

**Table 4: Summary statistics**. Proportions are based on all Eurobarometer waves. Missing values are omitted from calculations.

Variable		Proportion		Proportion
Age				
	15-24	0.12	25-34	0.15
	35-44	0.17	45-54	0.17
	55-64	0.17	65+	0.23
Household situation				
	Got worse	0.41	Improved	0.16
	Stayed the same	0.42	Don't know	0.01
Job situation				
	Got worse	0.27	Improved	0.15
	Stayed the same	0.47	Don't know	0.11
Job loss in crisis <sup>(a)</sup>				
,	Yes	0.09	No	0.91
Job loss in crisis <sup>(b)</sup>				
jou wss in crisis (*)	Yes	0.16	No	0.76
	Yes, but not crisis	0.08		
Is aid important?				
,	Not at all	0.03	Not very	0.1
	Fairly	0.5	Very	0.36
Keep promise?				
	Reduce aid	0.18	Not increase	0.16
	Keep promise	0.52	Increase	0.14
Pay more?				
J	Not more	0.55	Up to 5% more	0.32
	6-10% more	0.09	More than 10%	0.03
Gender				
	Male	0.46	Female	0.54
Living				
8	Large town	0.28	Small/ middle town	0.37
	Rural area	0.35	Don't know	0
Social rank				
	Top of top	0.02	Bottom of top	0.23
	Middle	0.48	Top of bottom	0.21
	Bottom of bottom	0.04	Don't know/ refused	0.03
Job				
	Business owner	0.05	Employed position	0.18
	Management	0.07	Other	0.21
	Professional	0.04	Retiree/ unable to work	0.29
	Student	0.08	Unemployed	0.09
Year				
	2009	0.2	2010	0.2
	2011	0.2	2012	0.2
	2013	0.2		