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Government Expenditures and Philanthropic Donations: Exploring Crowding-Out with Cross-Country Data

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Abstract

A dominant hypothesis in the welfare state literature is that extensive government programs "crowd out" different forms of civic engagement. This paper examines the association between public funding and philanthropic donations, being the first cross-country study to correlate government expenditures with the level of individual private donations to different fields of social welfare. Using the new Individual International Philanthropy Database (IIPD), we explore the association between government expenditures and philanthropic donations to different social welfare sectors across 19 countries. The results of the descriptive and multilevel analyses support the hypothesis that in countries where government expenditures in health and social protection are higher, there are more donors in "expressive" sectors like environment, international aid and the arts. People in generous welfare states are more likely to donate, but they donate amounts that are similar to those made by donors in less generous welfare states. The results thus reject the crowding-out hypothesis and give a nuanced picture of the relationship between public funding and philanthropic giving across different fields of social welfare.

Keywords: Philanthropy; Welfare states; Crowding-out; Nonprofit organizations; Government expenditures; Civic engagement; Welfare sectors.

Introduction

The relationship between the welfare state and civic engagement is a topic of recurrent discussions (Andreoni and Payne, 2011; Van Oorschot and Arts, 2005). Tracing back to the theoretical foundations of Alexis de Tocqueville (1970[1840]), it is hypothesized that the development of the modern welfare state "crowds out" citizens' own, private, initiatives such as informal caring relations and self-help (e.g. Künemund and Rein, 1999; Suanet et al., 2012). Additionally, critics argue that more generous government expenditures creating public goods and services discourage citizen's involvement in the creation of these public goods and services. For example, when the local municipality provides shelter for the homeless, there is less need for citizens to contribute to nonprofit organizations that target homelessness. To what extent the increase of higher government social expenditures is associated with lower private contributions to the public good is widely studied in the economic literature as the "crowding-out"-hypothesis (Abrams and Schitz, 1978; Andreoni, 1993; Brooks, 2004; Kingma, 1989; Roberts, 1984; Warr, 1982).

However, researchers from a range of disciplines have rejected the crowding-out hypothesis by arguing that "a well-developed welfare state creates the structural and cultural conditions for a thriving and pluralist civil society" (Van Oorschot and Arts, 2005: 6). They posit that more generous government expenditures promote civil society organizations and encourage private engagement in the form of philanthropic contributions of money and time (Anheier and Toepler, 1999; Khanna and Sandler, 2000: 1544; Rose-Ackerman, 1981). Another explanation arguing in favor of this "crowding-in"-hypothesis is that the support of nonprofit organizations

by governments acts as a signal of the organizations' quality and thus crowds-in private funding (Handy, 2000; Heutel, 2014).

Despite a large number of empirical studies, the debate is unsettled. Systematic literature reviews show that estimates of the effects of government expenditures on philanthropic giving are widely disparate and argue to establish a "contextual dependence" to validate the legitimacy of the crowding-out hypothesis. In other words, the findings depend on the measures used, the nature of the government expenditures, the nonprofit subsectors involved, or other moderating factors (De Wit and Bekkers, 2017; Lu, 2016). The large majority of studies refer to data from the U.S. and less is known about the relationship in countries with different traditions of the welfare state (De Wit, 2016; Bekkers, 2016).

There are few studies that investigated the crowding-out effect across countries, with two drawbacks. First, due to the lack of data availability, these studies could only investigate measures on the decision to give or not (Bredtman, 2016; De Wit, 2016; Gesthuizen et al., 2008; Pennerstorfer and Neumayr, 2016), or an aggregate measure of private nonprofit revenues rather than individual donations (Sokolowski, 2013). In order to study how individual philanthropic donations respond to government programs, information about the *level* of these individual donations is required. Second, many empirical studies examine aggregate measures of total government funding and philanthropic donations, and it is unlikely that a relationship is unidirectional across all fields to which governments make contributions (Brooks, 2004, p. 173; Khanna et al., 1995; Khanna and Sandler, 2000; Lu, 2016).

Against this background, our research question states: To what extent are government social expenditures associated with philanthropic giving in different nonprofit subsectors? By using a new cross-country database we are able to examine for the first time and in different

subsectors how government expenditures are associated with the incidence and level of individual philanthropic donations, across a range of 19 countries with a large diversity in welfare state traditions. Thus, to answer our research question, we first examine the relationship between government expenditures and individual philanthropic donations across countries. Second, we test the crowding-out hypothesis across different nonprofit subsectors to understand how government support of one subsector may result in either crowding-out in some subsectors or crowding-in in other subsectors. We also examine "crosswise crowding-in": whether an increase in government expenditure in one subsector may lead to an increase of individual philanthropic donations in other subsectors.

Our paper contributes to the important debate about the role of philanthropic donations in the light of changing government support, and whether private philanthropic donations can be seen as supplementary or complementary to government support for different public goods and services (Lecy and Van Slyke, 2013; Salamon et al., 2000; Young, 2000). In an era of changing relations between public and private actors, and of continued pressure on governments to decrease public social expenditures, the results of this study may provide important insights on the capability and willingness of citizens in different countries to engage in the voluntary private funding of different types of public goods. The findings of this study thus have significant consequences for public policy depending on civic engagement (Bonoli et al., 2000; European Commission, 2013).

Theory

Crowding-out

Individual contributions to the public good can be made either mandatory, through government taxes, or voluntarily, by philanthropic donations to nonprofit organizations providing that public good. If and how government expenditures attenuates philanthropic giving is debatable based on the evidence in the literature to date, and remains one of the most extensively discussed questions in public economics (Andreoni and Payne, 2011: 334). Early economic studies of the voluntary private provision of public goods argue that "preferences are assumed to be purely altruistic" (Andreoni, 1988: 57) that is, individuals making philanthropic donations receive no utility from the very act of giving the gift, as utility is related only to the consumption of private goods and the total supply of the public good. If people are purely altruistic, an increase in tax-financed government spending leads to a concomitant reduction of private donations, thereby keeping the total individual contribution (voluntary and involuntary) at the same level (Roberts, 1984; Warr, 1982). After all, pure altruists do not care whether the public good is realized through voluntary or involuntary contributions; they just care about realizing the public good. The prevailing assumption thus suggests a full crowding-out: that an increase in public expenditures by for instance one dollar persuades purely altruistic donors to decrease their own philanthropic contributions by one dollar – and vice versa (Brooks, 2004: 168; Payne 1998: 324).

In addition to this crowding-out explanation, there are other reasons to expect crowding-out. Donors might hesitate to make donations to organizations receiving government subsidies, in those contexts wherein such organizations are seen either as not viable, or as the long arm of the government (Brooks, 2004: 172). Other scholars suggest that when organizations receive

government subsidies, they decrease their fundraising efforts among the public, resulting in decreased individual donations (Andreoni and Payne, 2011; Khanna and Sandler, 2000: 1545).

However, there are a couple of reasons to expect partial crowding out but not a full crowding out. If individuals are incentivized to give because of other motivations than altruism, such as to feel good about oneself, to enhance one's reputation or to conform with social norms or social pressure (Bekkers and Wiepking, 2011), they will give regardless of who else contributes or does not contribute to the public good. To the extent that donors derive private benefits from the act of donating, like the warm glow and reputation gain, their donations would not be responsive to changes in contributions from a third party like the government (Payne, 2009).

Crowding-in

Besides arguments for crowding-out, there are reasons to expect that government expenditures and philanthropic donations are positively associated. The findings of crowding–in of private donations on the heels of increased public support rely on the signaling value of government expenditure. Philanthropic donors generally prefer to give to organizations that are well-established, which they perceive as being trustworthy and under information uncertainty; government subsidies, in some contexts, is seen as a "seal of approval" of the nonprofit organization (Handy, 2000; Schiff, 1990). In addition, non-profits may gain significant scaling advantages in their operations due to government support, which might increase their scope and motivate donors who care about impact (Anheier and Toepler, 1999; Khanna and Sandler, 2000: 1544; Rose-Ackerman, 1981).

Another argument for a positive correlation between government expenditures and philanthropic giving is provided by (neo)institutionalist theories, which posit that people adopt values and norms from the institutions surrounding them (Rothstein, 1998; Ingram and Clay, 2000). In this line of literature, attitudes towards social policies are shaped by the way a welfare state is structured (Arts and Gelissen, 2001, Jæger, 2006). Countries with a higher productivity growth are able to spend more on health care, education and other social issues (Baumol, 1996), and it could be that generous and universal welfare states "socialize" people to be more benevolent. Hence, people in generous welfare states would develop stronger pro-social values that encourage philanthropy.

The causal relationships between social values, welfare state generosity and philanthropy are hard to disentangle. If the median voter theorem holds, political outcomes are in line with preferences at the center of the electorate's political spectrum. As such, choices in welfare state spending express social values. When philanthropic giving is partly an expression of the same values, government expenditures and philanthropic giving will be positively correlated.

Empirical evidence

The majority of prior studies find that there is some form of partial crowding-out, meaning that a dollar of public grants crowds-out donations by less than a dollar (Brooks, 2004: 173). Some studies find no significant relationship between government expenditures and private giving (Brooks, 1999), and other studies find a crowding-in effect, i.e. that the level of government grants is positively correlated with private donations (Andreoni and Payne, 2011; Hughes and Luksetich, 1999; Payne, 1998). A recent meta-analysis, that systematically reviews previous studies on crowding-out, shows that the results are strongly shaped by methods used; for

example, in experimental studies a one dollar increase in government expenditures is associated with an average decrease of about 0.64 dollars, while non-experimental data analyses find a crowding-in effect of about 0.06 dollars on average (De Wit and Bekkers, 2017).

The vast part of the empirical literature is based on within-country variance in government spending. It is the question whether these findings tell us something about differences between countries. Most previous cross-country studies find either positive correlations or no statistically significant relationship between measures of government expenditures and philanthropic donations (De Wit, 2016; Einolf, 2016; Gesthuizen et al., 2008; Nguyen, 2015; Pennerstorfer and Neumayr, 2016; Sokolowski, 2013).

Some cross-country studies examine only Western countries (De Wit, 2016; Gesthuizen et al., 2008; Pennerstorfer and Neumayr, 2016). However, it could be that effects found in Western countries do not apply to other welfare state contexts. Using broader samples of developed and developing countries, both Sokolowski (2013) and Einolf (2016) find positive correlations across the board. The latter two studies show correlations based on aggregate country-level statistics of individual giving behavior, which makes them vulnerable to the ecological fallacy (Piantadosi et al., 1988).

Based on the theoretical reasoning and empirical evidence related to both crowding-out and crowding-in, we formulate two rival hypotheses:

Crowding-out hypothesis: Higher levels of total government expenditures are associated with lower levels of total private donations across nations.

Crowding-in hypothesis: Higher levels of total government expenditures are associated with higher levels of total private donations across nations

Nonprofit regime types

Empirical evidence gives reason to assume that the relationship between government expenditure and private donations is much more complex, depending not only on the motivations of the donors but also on institutional settings (Sokolowski 2013: 359). Referring to social origins theory, Salamon and Anheier (1998) point out that the relationships between government (social) expenditures, the size of the nonprofit sector and the role of philanthropy within a country are not related in a linear way, but that those relationships differ depending on the nonprofit regime of a country. Based on the classifications used by Esping-Anderson (1990), Salamon and Anheier (1998) identified a liberal, a social-democratic and a corporatist nonprofit regime and add the so called statist regime.

From all nonprofit regime types, it is in the liberal regime that nonprofits play the largest role in the provision of public and social services in contrast to the government, resulting in a substituting relationship between government expenditure and philanthropic giving. In addition, in the liberal regime philanthropic income is arguably the largest source of funding for the nonprofit sector, next to government subsidies and fees for services (Salamon and Anheier, 1998: 243). In contrast, in the corporatist regime, government and nonprofit sector expenditure and philanthropic giving are much more complementary. In this type of nonprofit regime, both are responsible for creating public goods and services. In the social-democratic regime, government provides the majority of public goods and services, and the nonprofit sector derives the largest part of income from public expenditure. Statist regimes are characterized by low social public expenditure and a small nonprofit sector.

Based on this reasoning, we suggest stronger crowding-out effects in countries of the liberal nonprofit regime compared to the other regimes:

> *Liberal regime hypothesis*: Crowding-out effects of government expenditure and aggregate levels of philanthropic giving are higher in countries belonging to the liberal nonprofit regime compared to all other regimes.

Different subsectors

Use of highly aggregative data may conceal substantively different crowding-out effects for different sectors. For example, an aggregate finding of significant crowding-out does not preclude the possibilities that in one subsector donations have been completely crowded-out while in the other subsector there is partial crowding-out and in a third subsector there is no impact of increases in government expenditures.

It can be hypothesized that crowding-out is more likely in the area of social welfare. In a study on volunteering, Stadelmann-Steffen (2011) argues that crowding-out is most likely in sectors where public and private contributions are in direct competition, like health care and social protection, where nonprofits and governments often provide similar public goods. Young (2000: 155) argues that governments and nonprofits are most likely to be substitutes in the area of social services, where public service delivery is often complex and target groups are heterogeneous, making it more likely that governments will leave service provision to nonprofit organizations. In "expressive" areas (Salamon et al., 2000), on the other hand, like environment, the arts or international aid, philanthropic donors are less likely to be discouraged by government programs. In these sectors, the goods that are produced are different. Klamer (2004) argues that

arts is not a public good but a common good, to which value is added by enjoying it, and to which the free rider problem does not apply. For environment and international aid, it holds that the public goods provided (e.g. a clean environment, less world poverty) can only indirectly be enjoyed. Donating to these sectors is therefore an expression of one's values rather than a contribution to a public good in the standard economic meaning.

There is some empirical evidence that the relationship between government expenditures and philanthropic donations varies across subsectors. Indeed, in a systematic literature review of non-experimental crowding-out findings, Lu (2016) shows that government expenditures and philanthropic donations are generally negatively related in the field of human services, while they are positively related in the fields of health and the arts. In his cross-national study, Sokolowski (2013: 375) found crowding-in for social services, health and education, but no effect in other fields. Empirical analyses on volunteering show that government expenditures discourage voluntary participation in social services and education, while it stimulates participation in recreation and culture (Day and Devlin, 1996; Stadelmann-Steffen, 2011).

Regarding differences between subsectors, we formulate the following hypothesis:

> *Social welfare crowding-out hypothesis*: The association between government expenditures and private donations is more strongly negative in the subfields of health and social services than in other subsectors.

Cross-wise crowding-in

Based on the empirical evidence showing that changes in government expenditures affect private donations to different types of non-profit subsectors differently (Brooks, 2004: 173; De Wit and

Bekkers, 2017; Lu, 2016), we argue that expenditures in one subsector may be associated with increases in philanthropic giving to other subsectors, with the aggregate level of giving remaining constant. This effect has been labelled "philanthropic displacement" (Sokolowski, 2013) or "cross-wise crowding-in" (Pennerstorfer and Neumayr, 2016).

Underlying this assumption is the argument that people are impure altruists, who are motivated for personal reasons as well as altruistic reasons and who have preferences for public good provision in more than one subsector. If multiple public goods have value in the eyes of donors, higher government support to one subsector could lead donors to decrease donations to this subsector, but increase donations to other subsectors. This is also a reasonable assumption if we believe that individuals have a philanthropic budget, or a mental account for philanthropic giving (Thaler, 1999). Nevertheless, it is possible that purely altruistic donors exist who only care about one type of public good such as social welfare services but not about another type of public good (arts, environment, education etc.). In this case we will not see cross-wise crowding-in. Donors would simply reduce their total donations in response to increased government expenditures to one subsector.

Supporting the notion of philanthropic displacement, Sokolowski (2013: 369) notes that high levels of government expenditures in the "service"-subsectors of education, health or social assistance lead to higher private donations in the "expressive"-subsectors such as arts and entertainment, human rights, environmental issues, and religion. Based on similar grounds, Pennerstorfer and Neumayr (2016) argue that people, when public funding covers core-welfare fields, may not necessarily reduce total giving, but instead donate to other, non-core welfare issues, such as international aid. Results of a historical analysis on private donations in Sweden concur with these findings, concluding that increases in welfare state expenditure do not dampen

private initiatives per se but rather displace civic engagement, resulting in higher levels of private giving in other subfields (Vamstad and Von Essen, 2013).

We thus hypothesize:

Crosswise crowding-in hypothesis: Higher levels of government expenditures to the subfields of social services and health are associated with higher levels of private donations to the subfields of environment, international aid and arts and culture.

Research design

Data and measures

The Individual International Philanthropy Database (IIPD) is a novel dataset, composed of synchronized and merged micro-level datasets from multiple countries. We use data on 126,923 respondents from 19 countries to estimate the correlation between government expenditures and philanthropic giving: Australia, France, UK, the Netherlands, US, Canada, Norway, Finland, Mexico, South Korea, Japan, Austria, Indonesia, Taiwan, Ireland, Israel, Russia, Germany and Switzerland. The datasets of different countries were collected between 2005 and 2011. This is a wide range, in which there were large economic and political change and thus, differences between countries might be the result of variation over time instead of between-country variation. Furthermore, since the data were collected using different designs, differences between countries should be interpreted with caution.[1] People with an altruistic orientation, who are more

[1] More information on the IIPD can be found in Wiepking and Handy (2016) and IIPD (2016).

likely to donate, are also more likely to take (voluntary) surveys (Abraham et al., 2009). This might imply that a higher non-response leads to lower estimates of donations. In questionnaires, it has been shown that survey prompts helps respondents to recall their donations, which leads to higher estimates (Bekkers and Wiepking, 2006; Rooney et al., 2004). Because different sampling methods and questionnaires are used in different countries, this might explain a part of the variance between countries.

The level of individual philanthropic donations, the *amounts donated*, are calculated in 2012 US dollars. Donations are strongly skewed, so large donations would have a disproportionate influence on the regression results. It is unlikely that government expenditures have a similar linear effect on donations at the very top of the distribution than they have on the bottom and the middle of the distribution. Therefore we take the natural logarithm of the amounts as dependent variables in the regression models. Total amounts donated to philanthropic organizations are available for all countries. For a smaller number of countries we were able to distinguish the amounts donated in the sectors (1) environment and animals, (2) arts and culture, (3) education and research, (4) international (relief), (5) social services/welfare and (6) health.

Data on public funding are adopted from the IMF's Government Finance Statistics. The numbers for Korea do not appear in the IMF data and are adopted from the OECD, which uses the same operationalization. We use expenditures in the year 2003 in order to have the independent variables precede the outcome variables. Expenditures in the local currency are calculated in US Dollars using the exchange rates as of January 1, 2003 and are divided by the population in order to have the expenditures per capita. Besides total government expenditures, we use expenditures on (a) environment protection, (b) education, (c) social protection and (d) health, which we match with giving in sectors 1, 3, 5 and 6, respectively. In the analyses on the

likelihood of donating, government expenditures are divided by 1,000 in order to let the range of the different variables not be different from each other. In the analyses on the influence of the nonprofit regime, we assign Australia, Canada, UK and US to the liberal regime, Germany, Austria, France, Ireland, Israel and South Korea to the corporatist regime, Norway, the Netherlands, Finland and Switzerland to the social-democratic regime and Russia, Indonesia, Taiwan, Mexico and Japan to the statist regime (see Einolf 2016: 514).

Both philanthropy and government efforts might be driven by a country's economy. Therefore we take GDP in US Dollars per capita as a control variable, also adopted from the IMF Government Finance Statistics. Control variables at the individual level include age, education, gender, marital status and the natural logarithm of income in US Dollars.

Analytical strategy

We explore the theoretical ideas as lined out in the previous section in two ways. First, we graphically explore our data, examining the correlation between government expenditures and aggregated, average philanthropic donations. The average philanthropic donation per country is calculated based on both donors and non-donors, whose donation value is 0. Second, we run multilevel regression analyses to examine contextual effects while controlling for individual characteristics and allowing slopes to vary across countries.

The decision to give or not may differ from the decision how much to give. For example, financial considerations are likely to be more decisive for amounts donated than for the decision to make a donation (Petrovski, 2017). Therefore we deploy separate Probit regression models on the probability to donate and linear regression models on the amount donated, conditional on donating.

In the analyses of total giving and total government expenditures, we take the sum of donations to different sectors for each respondent. Respondents are clustered in countries, so random intercepts are added when estimating the association between government expenditures and philanthropic donations. For the probability to donate and the amount donated, respectively, the following mixed effects regression models are deployed:

$$P(Y_{ij}) = \beta_0 + u_{0j} + \beta_1 G_j + \beta_2 C_j + \beta_3 I_i + \varepsilon_{ij}$$

and

$$\ln(Y_{ij}) = = \beta_0 + u_{0j} + \beta_1 G_j + \beta_2 C_j + \beta_3 I_i + \varepsilon_{ij}$$

in which Y is the amount donated by respondent *i* in country *j*, u_0 is the country-specific intercept, G is government expenditures in US Dollars per capita divided by 1,000, C is the control variable on the country level, GDP per capita divided by 1,000, and I refers to the individual control variables age, education, gender, marital status and income. The natural logarithm of the amounts donated are used.

For the analyses on giving in subsectors, a dataset is constructed in which the units of analysis are combinations of respondents and sectors. A respondent can donate to multiple sectors and therefore appear in the data more than once. Random intercepts are added for each country-sector combination:

$$P(Y_{ijs}) = \beta_0 + u_{0js} + \beta_1 G_{js} + \beta_2 C_j + \beta_3 I_i + \varepsilon_{ijs}$$

and

$$\ln(Y_{ijc}) = \beta_0 + u_{0js} + \beta_1 G_{js} + \beta_2 C_j + \beta_3 I_i + \varepsilon_{ijs}$$

in which Y is the amount donated by respondent *i* to sector *s* in country *j*, and u_0 is the country-sector specific intercept.

There is an ongoing debate about the problems associated with multilevel models in comparative research (Bryan and Jenkins, 2016). With a number of countries below 20, we should be cautious with strong conclusions that hold for the total population of countries. The results can be taken as a first attempt to explore cross-country differences in the relationship between government expenditures and philanthropic giving.

Results

Aggregate giving

Figure 1 plots the average amount donated per country with total government expenditures as US Dollars per capita (upper panel) and as percentage of GDP (lower panel). In Indonesia, Russia, Mexico, Taiwan and Korea, countries with relatively low government spending per capita, donations are low too. The United States and the United Kingdom have a moderate government spending and relatively high donations. The average amount donated in the US and the UK is higher than in countries with high government spending per capita, like Switzerland and Norway.

Models 1 to 3 in Table 1 provide a statistical test of the relationship between government expenditures and philanthropic donations. Because respondents are nested in countries, we run regression models with random intercepts for countries. Intra-class correlations (Rho) from

empty models (not shown) indicate that about 8% of the variance in the likelihood to donate and 41% of the variance in the amounts donated can be explained by country level characteristics. A Rho of 8% for the likelihood to donate is low compared with similar studies (Gesthuizen et al., 2008; Pennerstorfer and Neumayr, 2016). The 41% Rho for amounts is much higher, although there are no similar multilevel studies on amounts donated to compare this result with.

The left panel displays results of Probit models on the likelihood to be a donor. There is no significant association between government expenditures and the likelihood to donate, with the coefficient being ß=.04 in the model with full individual-level controls.

The right panel displays the coefficients from linear models on the amount donated. Model 1 shows a positive correlation between government expenditures and donations. When controlled for GDP, which is positively correlated with both variables of interest, the association becomes negative and non-significant (Model 2). Adding individual-level controls makes the main effect less strongly negative (Model 3). The coefficient is ß=-.05, which means that a USD 1,000 increase in government expenditures is associated with a USD 1 decrease in donations, albeit non-significant.

[FIGURE 1]

[TABLE 1]

Nonprofit regime types

The role of nonprofit organizations varies between countries, and we hypothesized that a negative relationship between government expenditures and donations is stronger in countries with a liberal nonprofit regime type. Figure 2 shows scatter plots in which each regime type is

distinguished with a different color, both for government expenditures in US Dollars per capita (upper panel) and as a percentage of GDP (lower panel). Although the number of countries per regime type is small, the picture provides a first attempt to explore their heterogeneity. There is a negative correlation among liberal countries. In the bottom panel of Figure 2, which takes into account the size of a country's economy by looking at government expenditures as a percentage of GDP, the overall correlation is weakly positive (r=0.04, p=0.00) but the picture is different when we examine the associations within each of the regime types. Correlations are negative among countries with a liberal nonprofit regime (n=36,103, r=-0.19, p=0.00), a social-democratic regime (n=11,346, r=-0.17, p=0.00), a corporatist regime (n=27,756, r=-0.24, p=0.00) and a statist regime (n=53,300, r=-0.13, p=0.00). The correlation is most strongly negative for corporatist countries, which is contrary to what we would expect from theory.

Model 4 in Table 1 explores this argument with interaction terms between regime type and government expenditures in multivariate models. We take the liberal regime type as the reference category, since we expect crowding-out in this type to be stronger than in all other regime types. Neither for the likelihood to donate, nor for the amount donated we find statistically significant interactions. Although there is large country heterogeneity, there is no robust evidence for crowding-out to be stronger in liberal nonprofit regimes.

[FIGURE 2]

Nonprofit subsectors

How is government spending in a certain sector related to philanthropic giving in the same sector? Figure 3 shows a scatter plot in which each point is a country-sector combination, with

the average amount donated in this sector on the y-axis and the government spending in the same sector on the x-axis. Both government spending and philanthropic donations are relatively low in the environment sector. In some sectors there is high government spending and low donations, like in the social sectors in the Netherlands, France and Norway. In other sectors, low government spending is related to high donations, like the health sector in Canada, the educational sector in Australia and the social sector in the US.

Table 2 provides a more systematic test of the association. Across all sectors, government expenditures are positively associated with the likelihood of donating, which is statistically significant (ß=.13 in a model with full individual-level controls). Model 4 adds interactions with sectors. Compared with government expenditures on environment, expenditures on education, health and social services are more strongly negative correlated with the probability of giving. The interaction terms of health and social services with government expenditures are most strongly negative, which is in line with the social welfare crowding-out hypothesis.

The right panel of Table 2 shows coefficients on the amount donated. Government expenditures and donations are negatively associated, but this is not statistically significant. The coefficient is ß=-.07 in the model with full controls, which is equivalent to a decrease of USD 1 with every increase in 1,000 USD government expenditures. The relationship is less strongly negative in the fields of social services and health, which is opposite to the expectation in the social welfare crowding-out hypothesis. None of the interaction terms are statistically significant.

[FIGURE 3]

[TABLE 2]

Crosswise crowding-in

Next, we look at the argument of crosswise crowding-in, which states that public funding of domestic welfare state issues drives donations towards other sectors. Figure 4 plots social protection and health expenditures with philanthropic giving to organizations in the fields of social services, health, environment, international relief or arts and culture. Again, plots are displayed both for government expenditures in US Dollars per capita (upper panel) and as a percentage of GDP (lower panel). The red dots represent donations in the field of social services and health, the blue dots donations in the three other sectors, environment, arts and culture and international aid. We would expect that government expenditures for social protection and health are negatively related to donations in the field of social services and health but positively related to donations in the other fields. There seems to be some empirical support for this argument. Countries with high domestic social welfare expenditures tend to have lower donations to social services and health but higher donations to sectors like international aid and environment.

Table 3 provides a statistical test of crosswise crowding-in. We expect health and social protection expenditures to be associated with donations in "expressive" subsectors. Here, we take donations to environment, arts and culture, and international aid as dependent variable.

Health and social protection expenditures are positively associated with the likelihood to donate to environment, arts or international aid (ß=.15 in a model with full controls), which is in line with the crosswise crowding-in hypothesis. The amount donated to these sectors, however, is not significantly affected (ß=-.02 in the full model). This suggests that stronger social welfare programs may drive donors towards these other sectors, but do not lead to higher amounts donated by these donors to those sectors.

[FIGURE 4]

[TABLE 3]

Robustness analyses

In multilevel models, one influential cluster can drive the results in a certain direction. As a robustness check, we re-run each model excluding one country, or a cluster of countries at the time.

In our data, the UK and especially the USA seem to be influential cases in the Probit models on the likelihood to donate. Among countries other than the USA and the UK there is a positive correlation between government expenditures and philanthropic giving at the country level ($\beta = 0.087$, $p<.05$), only a weak correlation on the country-sector level ($\beta = 0.107$, p=ns), and no evidence of crosswise crowding-in ($\beta = 0.009$, p=ns).

Discussion and conclusion

This paper contributes to the broad literature on different aspects of civic participation in the welfare state. Given the large differences between countries in rates of donors and volunteers (Bekkers, 2016; Salamon and Sokolowski, 2001), one of the challenges for the literature is to examine contextual explanations (Wiepking and Handy, 2015). This study explores government spending as correlate of philanthropic giving. On the one hand, government expenditures might be expected to displace philanthropic giving, e.g. because altruistically motivated donors reduce voluntary giving when the government is already providing public goods (Andreoni, 1993;

Roberts, 1984; Warr, 1982). On the other hand, government expenditures might be expected to encourage giving, e.g. because it sends positive signals about (the goals of) nonprofit organizations (Handy, 2000; Schiff, 1990).

The results of this study shows that government spending and philanthropic giving is most likely to go hand in hand. In countries with high government expenditures, there is likely to be a large proportion of philanthropic donors. This confirms earlier findings with cross-national datasets on the likelihood to donate (De Wit, 2016; Pennerstorfer and Neumayr, 2016). Our analysis goes a step further, though, by examining government spending and giving in specific nonprofit subsectors. There is stronger crowding-in in the field of education and research, and, most strongly, environment. In the subsectors social services and health, on the other hand, government spending does not strongly affect the number of donors. Government expenditures in these areas are associated with a higher number of donors in other fields, like environment, arts and culture, and international aid, suggesting that high levels of social welfare spending in "service" subsectors drives donors towards "expressive" areas. In previous research, this has been labeled "philanthropic displacement" (Sokolowski, 2013) or "crosswise crowding-in" (Pennerstorfer and Neumayr, 2015).

Among donors, the amounts donated to philanthropic causes are not associated with government spending. There is no significant relationship when looking at aggregate giving, nor is there any evidence for correlations in specific sub-sectors. This has never been studied before and can be considered a very important null-finding. If there would have been evidence for levels of philanthropic giving to be crowded out by welfare state efforts, this would have supported arguments for the nonprofit sector as substitute to the government. With the current results, there

is no reason to believe that governments and philanthropic donations to nonprofit organizations are competitive.

The use of cross-sectional comparative data with less than 20 countries is contested. First, the results are hardly generalizable to a larger population of countries. One of a few exceptional countries can drive the results in a certain direction. The robustness checks showed that the United States and the United Kingdom are influential countries in our sample. The database that is used for this study poses further problems because it is compiled from different national surveys. Different sampling methods (Abraham et al., 2009) and questionnaires (Bekkers and Wiepking, 2006; Rooney et al., 2004) may lead to differences in estimated donations. Second, it is difficult to deduct conclusions about the direction of causality. Both government support and philanthropic donations might be driven by the same underlying variables, which produces upwardly biased estimates. Previous studies dedicated a lot of effort to reduce this bias (Payne, 2009), although a meta-analysis did not find systemically lower estimates with techniques that account for endogeneity and omitted variable bias (De Wit and Bekkers, 2017).

We are very well aware of the problems associated with cross-sectional research and multilevel analyses with a low number of clusters. However, the topic of philanthropy in different welfare states is too important to neglect. This study is the first comparative analysis that (1) relates individual amounts donated to government spending and (2) is able to examine different correlations in a number of specific nonprofit subsectors, where different effects may exist.

In doing so, it rejects the hypothesis of governments and philanthropic donations as substitutes. Amounts donated to philanthropic causes in different sectors are not crowded out by government spending, and the association between government expenditures and the percentage

of donors is robustly positive. In the light of the mixed evidence on welfare state effects on different forms of civic participation (Bredtman, 2016; De Wit, 2016; Gesthuizen et al., 2008; Pennerstorfer and Neumayr, 2016; Sokolowski, 2013; Stadelmann-Steffen, 2011; Van Ingen and Van der Meer, 2011; Van Oorschot and Arts, 2005), this study delivers important insights by exploring philanthropic giving in different subsectors of social welfare. Although the evidence is still not conclusive with a sample of 19 countries, there is reason to be optimistic about productive government-nonprofit collaborations.

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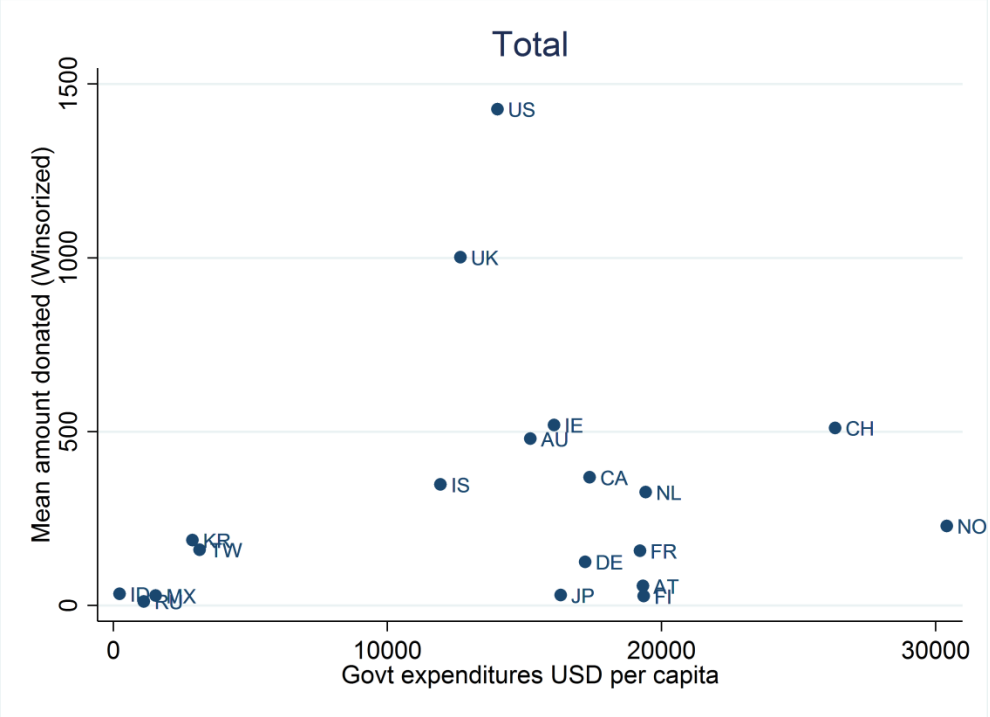
Figure 1: Average philanthropic donations and government expenditures (Sources: IIPD, IMF)



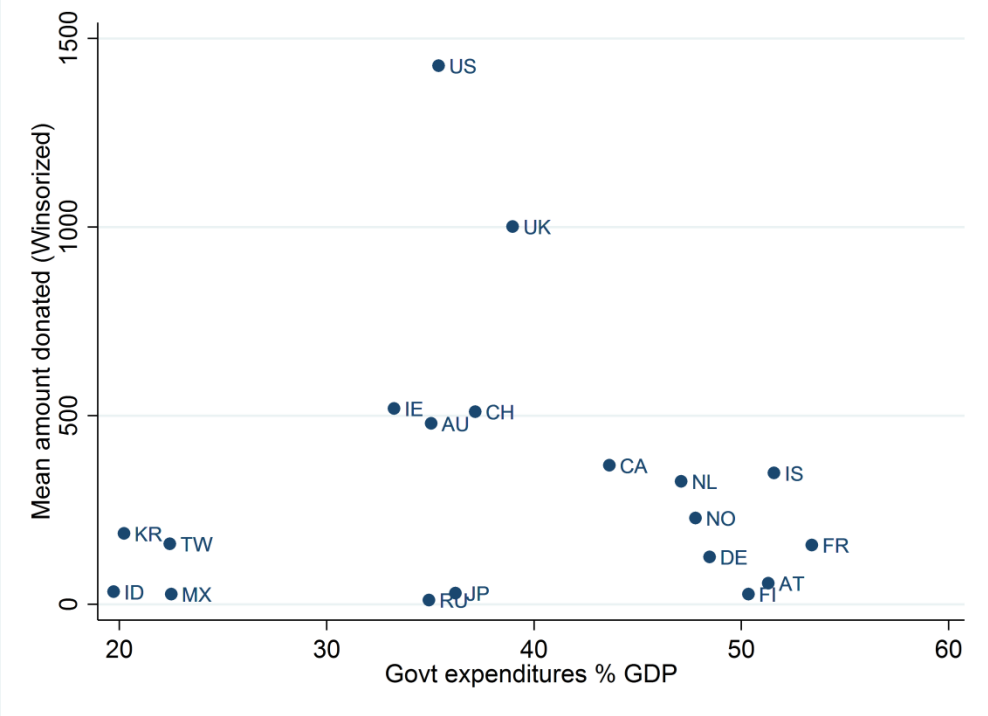


Figure 2: Average philanthropic donations and government expenditures per nonprofit regime type

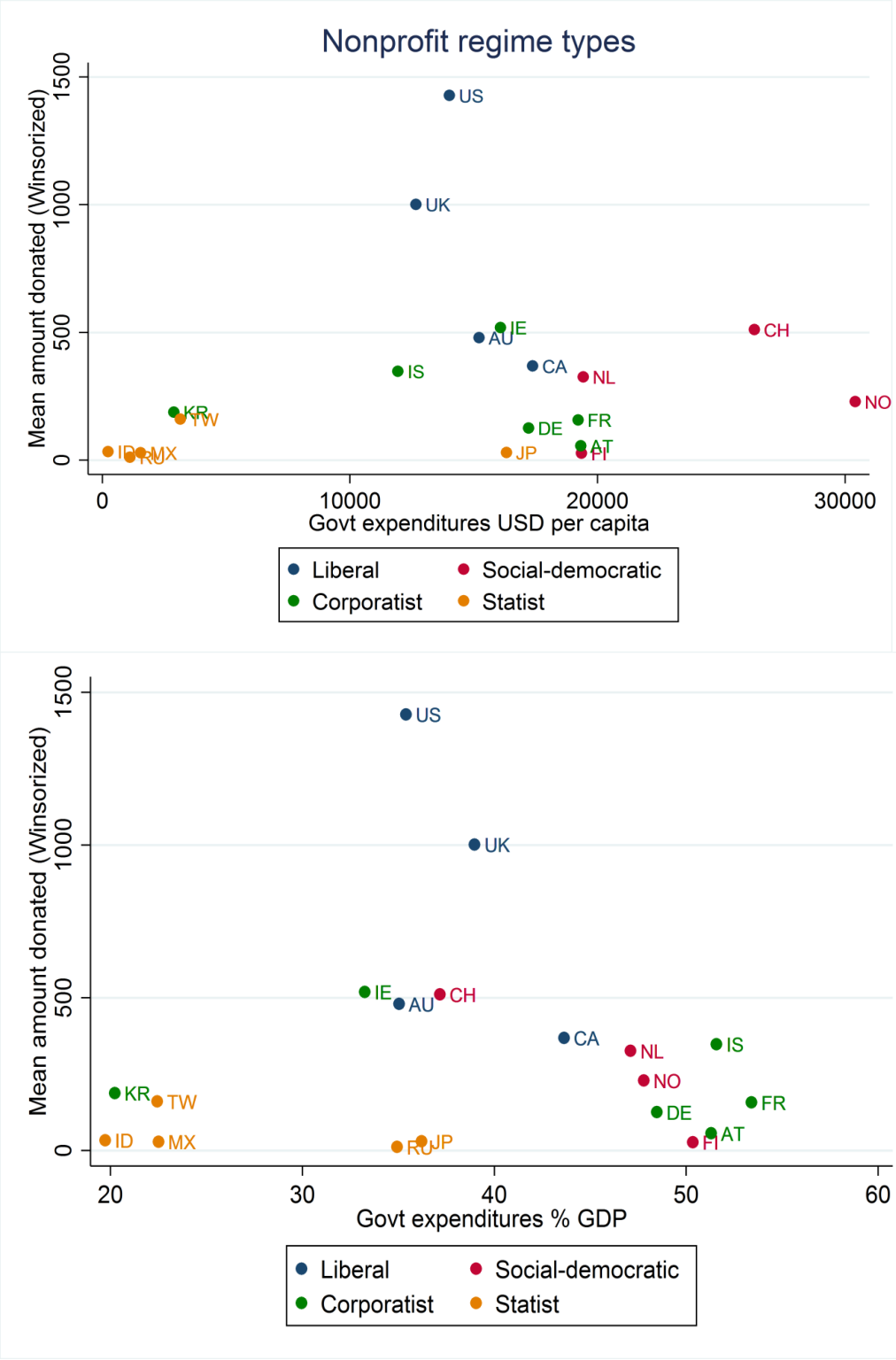
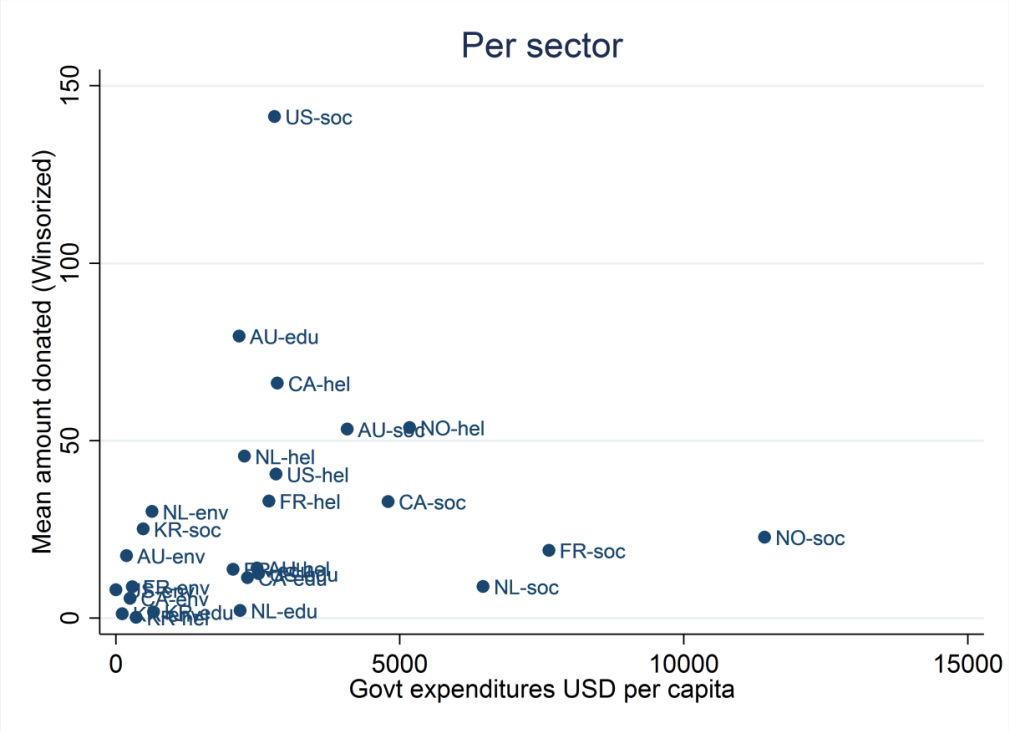


Figure 3: Average philanthropic donations and government expenditures per sector



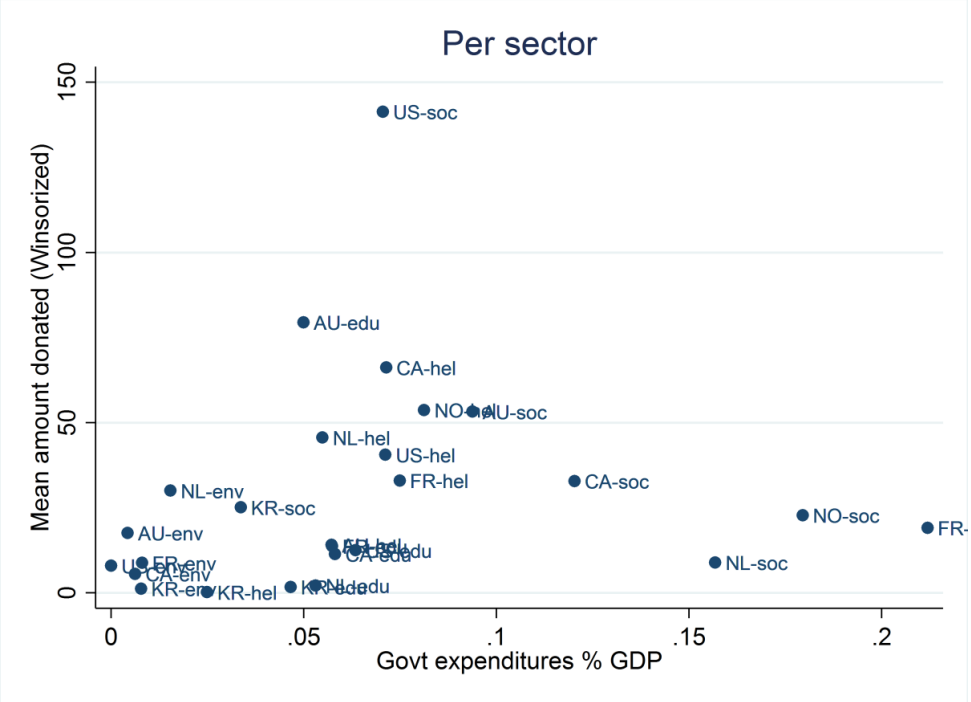
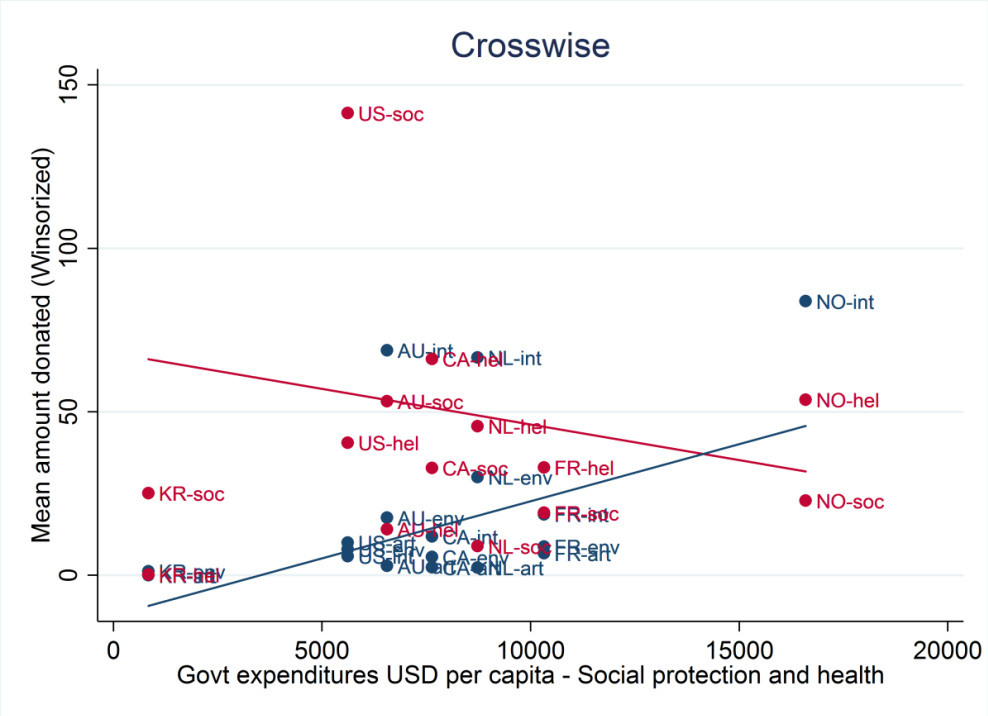


Figure 4: Average philanthropic donations per sector and government expenditures to social protection and health



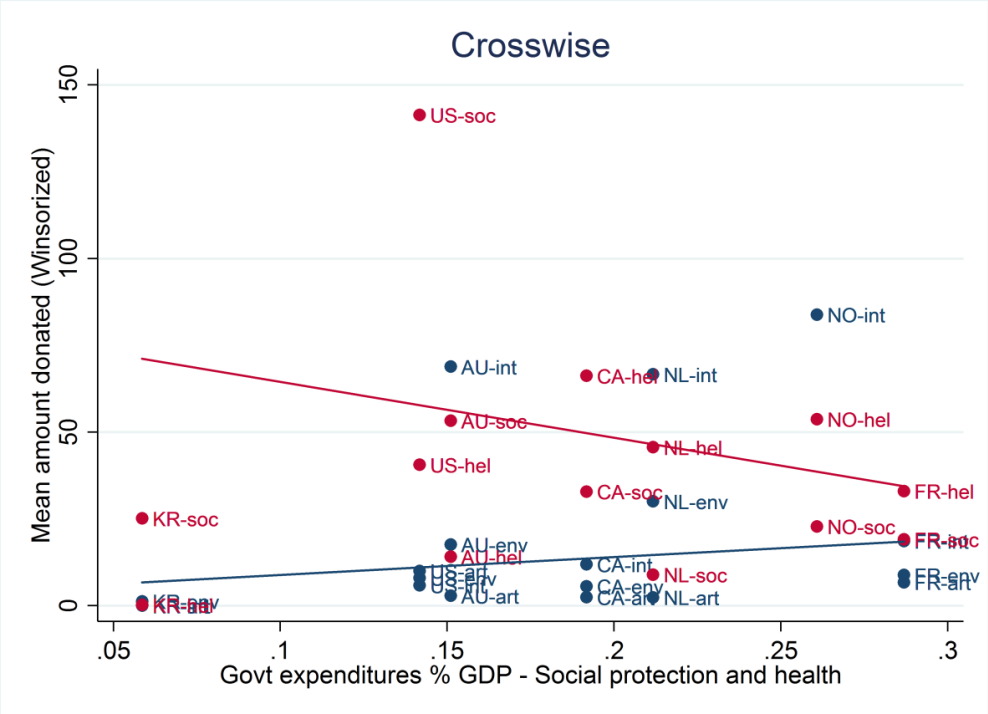


Table 1: Probit and Linear multilevel regression models on total giving (Sources: IIPD, IMF, OECD)

	Probability				Amount (ln)			
	1	2	3	4	1	2	3	4
VARIABLES								
Govt expenditures / 1,000	0.009	0.019	0.040	-0.139	0.067**	-0.093	-0.053	-0.317
	(0.015)	(0.039)	(0.041)	(0.117)	(0.032)	(0.076)	(0.089)	(0.297)
Regime: Liberal				Ref				ref.
Regime: Social-Democratic				-1.973				-6.277
				(2.289)				(5.818)
Regime: Corporatist				-3.346*				-4.332
				(2.002)				(5.089)
Regime: Statist				-3.369*				-5.018
				(2.009)				(5.106)
Soc-Dem * Govt expenditures / 1,000				0.145				0.324
				(0.139)				(0.354)
Corporatist * Govt expenditures /1,000				0.180				0.278
				(0.131)				(0.334)
Statist * Govt expenditures / 1,000				0.127				0.133
				(0.139)				(0.353)
GDP / 1,000		-0.007	-0.036	-0.047**		0.110**	0.057	0.045
		(0.025)	(0.026)	(0.023)		(0.048)	(0.057)	(0.058)
Constant	0.457*	0.490*	-0.186	3.250	3.601***	3.082***	1.911***	6.832
	(0.241)	(0.268)	(0.280)	(2.029)	(0.523)	(0.521)	(0.613)	(5.159)
Individual-level controls			Yes	Yes			Yes	Yes
Observations	126,923	126,923	126,923	126,923	72,076	72,076	72,076	72,076

Number of country	19	19	19	19	19	19	19	19
Rho	0.082	0.082	0.088	0.043	0.373	0.323	0.421	0.316

Individual-level controls: Age, Secondary education, Tertiary education, Male, Married, Income (Ln)
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 2: Probit and Linear regression models on giving to nonprofit subsectors (Sources: IIPD, IMF, OECD)

	Probability				Amount (ln)			
	1	2	3	4	1	2	3	4
VARIABLES								
Govt expenditures per sector / 1,000	0.127 ***	0.120 **	0.129 **	2.700 ***	-0.022	-0.087	-0.068	-1.453
	(0.043)	(0.056)	(0.059)	(0.535)	(0.055)	(0.063)	(0.071)	(1.741)
Sector: Environment				ref				Ref
Sector: Education				-1.050				1.367
				(1.283)				(1.634)
Sector: Health				0.461				-0.363
				(0.500)				(0.878)
Sector: Social services				1.852 ***				-0.357
				(0.566)				(1.107)
Education * Govt expenditures / 1,000				-1.913 **				0.594
				(0.815)				(1.871)
Health * Govt expenditures / 1,000				-2.435 ***				1.382
				(0.541)				(1.741)
Social * Govt expenditures / 1,000				-2.741 ***				1.409
				(0.536)				(1.763)
GDP / 1,000		0.004	0.129	-0.003		0.034*	0.017	0.023
		(0.010)	(0.059)	(0.016)		(0.018)	(0.020)	(0.029)
Constant	- 0.905***	- 1.005 ***	- 1.601 ***	-2.234 ***	3.878***	3.082***	1.919***	2.052**
	(0.114)	(0.187)	(0.446)	(0.437)	(0.210)	(0.455)	(0.505)	(0.926)
Individual-level controls			Yes	Yes			Yes	Yes

Observations	157,392	157,392	157,392	157,392	49,725	49,725	49,725	49,725
Number of country-sector	39	39	39	39	26	26	26	26
Number of respondents	40,899	40,899	40,899	40,899	27,453	27,453	27,453	27,453
Rho	0.177	0.177	0.177	0.132	0.225	0.196	0.208	0.242

Individual-level controls: Age, Secondary education, Tertiary education, Male, Married, Income (Ln)
Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 3: Probit and Linear regression models on giving to environment, arts and culture, and international aid (Sources: IIPD, IMF, OECD)

	Probability			Amount (ln)		
	1	2	3	1	2	3
VARIABLES						
Social protection and health expenditures / 1,000	0.154 ***	0.108 *	0.146 ***	-0.032	-0.077	-0.016
	(0.030)	(0.057)	(0.056)	(0.055)	(0.067)	(0.046)
GDP / 1,000		0.026	0.011		0.031	0.014
		(0.020)	(0.023)		(0.026)	(0.018)
Age			0.006 ***			0.010***
			(0.000)			(0.001)
Constant	-2.342 ***	-2.695 ***	-3.193 ***	4.326***	3.778***	2.497***
	(0.239)	(0.302)	(0.434)	(0.469)	(0.664)	(0.477)
Individual-level controls			Yes			Yes
Observations	115,825	115,825	115,825	11,245	11,245	11,245
Number of Country-sector combinations	28	28	28	17	17	17
Number of respondents	40,899	40,899	40,899	9,180	9,180	9,180
Rho	0.123	0.119	0.115	0.175	0.169	0.181

Individual-level controls: Age, Secondary education, Tertiary education, Male, Married, Income (Ln)
Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1