Democracy and Aid Donorship

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Almost half of the world's states provide bilateral development assistance. While previous research takes the set of donor countries as exogenous, this article introduces a new dataset on aid giving covering all countries in the world, both rich and poor, and explores the determinants of aid donorship. It argues and shows empirically that democratic institutions support the setup of an aid program in richer countries but undermine its establishment in poorer countries. The findings hold in instrumental-variable regressions and the pattern is similar for the amount of aid.
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The Kingdom of Morocco is a lower-middle-income country. It ranks only 123rd of 188 on the 2017 Human Development Index (HDI) published by the Human Development Report Office (2018). Still, the Kingdom has provided development aid to other countries since 1986 through the *Agence Marocaine de Coopération Internationale*. Almost all African countries, whether poorer or richer than the donor itself, are recipients of Moroccan aid. Much more recently in 2013, Mongolia, ranked 92nd on the HDI, has established its own outward aid institution. The *International Cooperation Fund of Mongolia* is part of the Mongolian government's strategy to "strengthen the country's role and contributions internationally

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as a means of diplomatic soft power policy."[1] As funders of development cooperation, Morocco and Mongolia are by no means exceptions among developing countries. In today's world, 88 countries are active as aid donors, of which 44 countries are classified as low- or middle-income economies according to World Bank classifications.

It is puzzling why some governments decide to already engage in aid donorship at early stages of economic development, while others do not. On the one hand, low- and middle-income countries face strong opportunity costs when spending resources on outgoing development aid rather than investing them directly in the development of their own countries. On the other hand, governments might be interested in reaping the benefits of aid deliveries, which have been documented by an extensive literature. For example, aid can promote geostrategic interests (Bearce and Tirone, 2010, Fleck and Kilby, 2010), contribute to regime changes in recipient countries that align with donor interests (Bermeo, 2011, Kersting and Kilby, 2014), buy political support in international organizations (Kuziemko and Werker, 2006, Dreher, Sturm and Vreeland, 2009), boost exports (Martínez-Zarzoso et al., 2009), and improve the donor's image in recipient countries (Dietrich, Mahmud and Winters, 2018). Aid can also serve political leaders' personal goals by channelling aid in accordance with their own electoral interests (Jablonski, 2014, Dreher et al., 2019).

In this paper, we offer an explanation of how these two opposing interests enter into the decision to start aid giving. More precisely, we analyze the role of political institutions for aid initiation and how it is contingent on countries' level of development. In particular, we hypothesize that democratic institutions make it less likely that poorer countries, and more likely that richer countries, become aid donors. To enable an exploration of the role that democratic institutions play for aid initiation, we construct a database on aid donorship for all countries in the world since 1945.[2] Our regression results confirm that democracy has a positive effect on aid giving in richer countries and a negative effect in poorer countries.

There are two puzzle pieces to derive our hypothesis that democratic institutions make it less likely that poorer countries, and more likely that richer countries, become aid donors. First, we argue that the income elasticity of demand for international development varies at different income levels. Global development exhibits the characteristics of a luxury good (Dudley, 1979), which is only supplied when more basic needs are fulfilled. With rising levels of per-capita income, the donor population may also demand more regional and global public goods. In particular, richer individuals are more likely to demand that their gov-

[1] See website of Mongolia's Ministry of Foreign Affairs at `http://www.mfa.gov.mn/?p=29286` (accessed September 11, 2017).

[2] *Development* aid, which is the focus of our paper, is a post-Second World War phenomenon. However, foreign aid more broadly understood has deep historical roots. As Markovitz, Strange and Tingley (2019) highlight, European and non-European powers, such as Rome and China, frequently used foreign aid to restore, maintain or disrupt the geopolitical status quo throughout different historical episodes prior to the 20th century.

ernments use aid to protect air, water, land, biodiversity, and the climate; prevent the transboundary spread of infectious diseases; combat the illicit trafficking of drugs, weapons, and wildlife; prevent the spread of terrorism and violent conflict; and address large-scale human population movements across borders (Chauvet, 2003, Sandler and Arce, 2007, Hicks et al., 2008, Bermeo, 2017, Dreher, Fuchs and Langlotz, 2019). Preferences for the provision of aid should thus rise disproportionally with increased income. Consequently, richer individuals should be more likely to accept (or even push for) the provision of development assistance to the developing world. Conversely, there should be less support for the usage of tax money for development aid if there is still a considerable degree of poverty in the potential donor country. This aligns with empirical evidence that individual income is positively associated with support for development aid giving (Chong and Gradstein, 2008, Paxton and Knack, 2012, Cheng and Smyth, 2016).

Second, the degree to which citizens' preferences translate into actual policy making should be larger in democracies than in authoritarian regimes. In contrast to autocracies, aid policies in democratic systems require the approval of parliaments. Legislators have incentives to respond to the preferences of their constituents in their votes on aid (Milner and Tingley, 2010). This implies that the lack of support for aid in poorer countries will decrease a democracy's likelihood to start aid giving. Conversely, any public opposition to aid giving should be less consequential in equally poor authoritarian regimes since the leadership there relies on a small elite rather than a large electorate. The leaders of these regimes face fewer constraints that would hinder governments from reaping the benefits of a development aid program to themselves and their cronies. On the contrary, we expect democracies to be more likely to initiate aid giving at high levels of income when public opinion is favorable towards the provision of global public goods. Since democracy is conducive to the development of a vivid civil society, rich democracies should become more prone to aid giving than rich autocracies (Lumsdaine and Schopf, 2007).

The results presented in our paper challenge existing theories of the link between democratic institutions and aid donorship. Most prominently, Bueno de Mesquita and Smith (2007, 2009) theorize that democracies are more likely to engage in development cooperation. This result emerges as rational leaders of democratic countries support higher levels of public good provision, including policy concessions bought from other countries through development aid, in order to remain in power. Coincidentally, implications of this theory are in line with the conventional wisdom in the development literature that aid is a phenomenon driven by Western-style liberal democracies. Lumsdaine (1993), for example, explains the emergence of development aid as a reflection of domestic redistributive norms of Western welfare states, while Noël and Thérien (1995) emphasize the link to specific institutional characteristics of social democracies. However, a first glance at our new dataset raises doubts whether democracies are indeed more likely to become aid donors. For instance, China's aid activities date back to the 1950s

(Dreher and Fuchs, 2015). Arab countries, such as Kuwait or the United Arab Emirates, became aid donors in the 1960s and 1970s (Neumayer, 2003, Werker, Ahmed and Cohen, 2009). We argue and show instead that the effect of democracy on aid initiation is a function of a country's income level. More precisely, both the first aid delivery and the setup of aid institutions are more likely to occur in democratic countries at a time of high per-capita income when support of aid likely outweighs opposition to aid.

Our empirical approach addresses endogeneity concerns. Both the initiation of an aid program and measures of political regime type are institutional variables that might be simultaneously affected by country-specific and time-varying omitted variables. We address this with a variant of the instrumental-variable approach introduced by Acemoglu et al. (2019). Departing from the observation that democratization often emerges in the form of regional waves, our instrument is the lagged average level of democracy within a peer group of countries in the same world region that share a similar political history. The instrument is powerful, and we explain in detail below why we consider it unlikely that the exclusion restriction is violated. We also discuss below remaining concerns related to our identification strategy.

Our main results are robust to alternative treatment of missing values, changes in temporal aggregation, an alternative definition of our dependent variable, several extensions of the set of explanatory variables, and the exclusion of EU accession countries as potential outliers. Extending our analysis to aid volumes, we also find that, compared to authoritarian donor countries, democratic donor countries provide smaller amounts of aid when they are poorer. This suggests that our proposed mechanism is not only applicable to the initial decision to provide aid but also affects the extent of aid.

Rather than taking the sample of donor countries as exogenous, this paper is the first study to empirically explore the determinants of aid donorship with a dataset covering all countries in the world. So far, data availability has dictated which of the world's countries could be included in empirical studies of aid.[3] As a result, an overwhelming number of studies analyze donor countries organized in the OECD's Development Assistance Committee (DAC), which is a club of rich democracies.[4] Thus, existing studies that aim to shed light on aid motives run the risk of sample selection biases. Yet, a better understanding of governments' motives to start aid giving is crucial since previous research has shown that donor motives affect the effectiveness of aid (Kilby and Dreher, 2010, Dreher et al., 2013).

This article proceeds as follows. Section 1 introduces the new database on aid donors and provides a first descriptive overview on the proliferation of aid donorship across the globe. Section 2 explains the empirical approach, including

[3]Survey studies that provide an overview on the aid literature include Doucouliagos and Paldam (2011), Milner and Tingley (2013), Fuchs, Dreher and Nunnenkamp (2014), and Doucouliagos (2019).

[4]Studies that extend the scope of their research to non-DAC countries cover only one or a small number of these donors (Dreher, Nunnenkamp and Thiele, 2011, Fuchs and Vadlamannati, 2013, Semrau and Thiele, 2017, Strange et al., 2017, Asmus, Fuchs and Müller, 2020).

the instrumental-variables strategy, and also introduces the other datasets used in our study. In Section 3, we present our results and discuss the robustness of our findings. We close this paper with our conclusions in Section 4.

I. The New Aid Donors Database

The conventional data sources on development aid, such as OECD-DAC and AidData, report commitments and disbursements of Official Development Assistance (ODA) and Other Official Flows (OOF), but their cross-donor coverage is low and depends on the availability of data on financial values. Therefore, the absence of data for a particular country must not be interpreted as an absence of aid activities.[5] For those donors that are captured, these databases do not necessarily provide information on the entire history of their aid giving. What is even more critical for the purposes of our research question, is that aid data are not missing at random. Data availability is biased toward rich and democratic countries (Nielson, Parks and Tierney, 2017).[6]

To fill this information gap, we build a comprehensive database on aid donorship since the end of the Second World War (Budjan and Fuchs, 2020). It contains information on 114 countries from 1945-2015 on the year of a country's first outgoing aid project, the name and year of its current institution responsible for aid provision, the name and year of establishment of its first institution responsible for aid provision, and the name and year of its first aid legislation. Data were collected between March 2016 and August 2017. We constructed a questionnaire in the English language to collect data from official administrative bodies of all 175 sovereign states with a population larger than 300,000 inhabitants that are listed in the State System Membership database (Correlates of War Project, 2017). We translated the original questionnaire, presented in Online Appendix A1, into four additional world languages to increase the response probability (Arabic, French, Portuguese, and Spanish). In the first stage, we sent the questionnaire to the Ministry of Foreign Affairs (or the Ministry of Development Cooperation) of each country. If this inquiry was unsuccessful despite follow-up e-mails, we e-mailed the questionnaire in the second stage to another ministry of relevance (such as the Ministry of Finance), the respective embassy in Germany (the country where this study was carried out), or both. In the third stage, we contacted the relevant institutions by phone. Using this procedure, we were able to gather information for 94 countries. In the fourth stage, we verified and completed our data with information provided on government websites, the academic literature, the grey literature, and media reports. The reliance on secondary sources is low, with data for only 25 countries fully relying on such information.

[5]For example, India has provided aid since 1959 but the OECD only has reported Delhi's aid volume since 2011 (see `http://www.oecd.org/dac/stats/non-dac-reporting.htm`, accessed May 31, 2018) and AidData reports Indian aid projects systematically after 2007 only (Tierney et al., 2011, AidData, 2017).

[6]According to the 2018 Aid Transparency Index (Publish What You Fund, 2018), China and the United Arab Emirates, the only autocracies included in the index, rank at the bottom.

In the context of our study, we define development cooperation in turn as the provision of grants, concessional loans, technical assistance, and in-kind assistance with the main objective being the promotion of the economic development and welfare of another country. By applying this definition, we broadly follow the OECD definition of ODA. In contrast to the latter, however, our definition is for several reasons agnostic about the size of the grant element inherent in a country's development activities. First, for most countries, it is not possible to obtain the relevant information. Second, the computation of the grant element in ODA according to OECD definitions is subject to controversies in the development community (Barder and Klasen, 2014). Finally, it is important to note that our definition of development cooperation excludes military aid, anti-terrorism activities, and humanitarian assistance.[7]

We employ two definitions to identify the year in which a country becomes an aid donor. As a starting point, considering the broadest possible definition, we define a country as an aid donor if it already has provided development assistance at least one time to another country. We thus obtain a binary variable that assigns a value of one in the year of the first development cooperation activity, and zero in all years preceding this event.[8] The first countries to provide development assistance were Mexico in 1943, the Netherlands in 1949, and China and the United States in 1950. By the end of 2015, 91 countries had assumed the role of a donor of development assistance according to this broad definition. The countries that most recently entered the club of aid donors were Paraguay and Timor-Leste in 2014.

The downside of our broad definition is that even countries that have only provided a single small development project or a tiny amount of aid money would fall under it. One could argue instead that only countries that have institutionalized their aid giving should be defined as aid donors. This is why our second definition only codes countries as aid donors if they have set up an administrative body whose main responsibility is the management of outgoing development assistance. This includes departments within a country's Ministry of Foreign Affairs, a separate Ministry for Development Cooperation, and aid agencies operating independently.[9] The resulting dependent variable thus takes a value of one in the year a country establishes its first aid institution, i.e., the first administrative body for the provision of aid (or redefined the main purpose of an existing administrative

[7]The exclusion of military aid and anti-terrorism activities follows OECD definitions. Humanitarian assistance differs from general development assistance in that it is the response to an immediate, short-term need rather than aiming at more long-term development targets. What is more, humanitarian assistance is often not dealt with within the same administrative bodies as general development assistance.

[8]We did not attempt to gather systematic information on when countries ceased aid giving. While this seems to be a very rare event, in the course of our data collection, we noted two cases. First, Iraq stopped providing aid via the Iraqi Fund for External Developments in 1982. Second, Cyprus stopped its aid activities in 2011 only 5 years after starting them due to the impact of the financial crisis.

[9]For instance, Finland (Department for Development Policy) and Honduras (Dirección General de Cooperación Internacional) organize their development aid via a department within the Ministry of Foreign Affairs. Countries such as Brazil (Agência Brasileira de Cooperação) and Kuwait (Kuwait Fund for Arab Economic Development) maintain independent aid agencies.

body such that it falls under our definition). The first countries to set up aid institutions were the United States in 1950, Norway in 1953, and Japan in 1954. By the end of 2015, 76 countries had assumed the role of a donor of development assistance according to this narrow definition. The last country entering this club was Venezuela in 2015. Figure 1 shows a world map that graphically displays the time period in which countries became an aid donor according to this narrow definition of aid donorship.[10]

Since establishing an aid institution signals a commitment for repeated aid deliveries, the narrow definition of our dependent variable is our preferred definition. Nevertheless, we show regressions that employ the broad definition for comparison. In our empirical analysis below, we assume that all countries for which we found no indication that they act as an aid donor have not yet provided aid.[11] We believe that this is a plausible assumption as countries are only missing from the original dataset if neither literature searches, internet research, nor direct contact with the ministries could confirm or disconfirm the existence of an aid institution. It is very unlikely that we would not have gathered information on a donor despite a country's active engagement in development cooperation. As a test of robustness, however, we also show regression results with a "limited sample," where we treat these cases as missing values and obtain similar results.

To illustrate our main argument with our new data, Figure 2 plots histograms of the logged per-capita income level at which countries become new aid donors (according to both definitions) separately for democracies and authoritarian regimes. As can be seen, new authoritarian donors have on average a lower income level compared to their democratic counterparts at the time of aid initiation. This is first descriptive evidence that would be in line with our hypothesis that the lack of democratic institutions facilitates the introduction of new aid programs at low levels of income.

II. Empirical Approach

We estimate the probability of becoming an aid donor in a given year. As outlined above, we expect that a country's political institutions have heterogeneous effects on the probability of becoming an aid donor depending on its level of economic development. Therefore, we analyze an interaction effect of democracy and income. We estimate a linear probability model since the interpretation of interaction effects and the estimation with fixed effects is not straightforward in non-linear models (Ai and Norton, 2003, Greene, 2010). Our model takes the

[10] Online Appendix C2 shows the corresponding map for the broad definition. Online Appendix A2 provides a list of all countries with the respective year of their first aid delivery and establishment of an aid institution. Six countries for which we found evidence that they are active as donors of development aid but could not determine the year of their first aid project were coded as missing values and thus excluded from the regression analysis below. These are Algeria, Bahrain, Iran, Pakistan, Peru, and Vietnam.

[11] This is the case for 61 countries for the first aid delivery variable (broad definition) and 65 countries for the aid institution variable (narrow definition).

following form:

$$
\begin{aligned}
(1) \qquad Pr(donor_{it} = 1 | D_{it-1}, G_{it-1}, X_{it-1}) &= \beta_1 D_{it-1} + \beta_2 G_{it-1} \\
&+ \beta_3 D_{it-1} \times G_{it-1} + X'_{it-1}\beta_4 + H(\cdot) + \gamma_i + \delta_t,
\end{aligned}
$$

where $donor_{it}$ is a binary variable that takes the value one in the year t in which a country i becomes a donor of development aid, and zero in the years before, $D_{i,t-1}$ is a measure of democracy, $G_{i,t-1}$ is the natural logarithm of country i's per-capita GDP, and $X_{i,t-1}$ is a vector of control variables for country i in year $t-1$. The function $H(\cdot)$ controls for duration dependence with the inclusion of a cubic time trend, which begins either at the beginning of our sample, or—if a country reaches independence later than 1950—at the year of independence.[12] Finally, γ_i and δ_t are full sets of country- and year-fixed effects. Countries generally enter the sample in 1951, which is the beginning of our period of observation due to data constraints. They drop out of the sample after the country has become an aid donor. Countries that gained independence after 1951 enter the sample at their respective year of independence. Standard errors are clustered at the country level.

Data on logged per-capita GDP come from the Penn World Tables (Feenstra, Inklaar and Timmer, 2015, 2019). As our measure of democracy, we construct the consolidated dichotomous measure proposed in Acemoglu et al. (2019) that intends to overcome measurement error in its constituent variables.[13]

As in most non-experimental studies, our analysis has to deal with concerns of endogeneity. Both democracy and the initiation of an aid program are linked to a country's institutional and political characteristics. Hence, it is possible that changes in both variables are spuriously correlated due to a third variable that drives the effect. For instance, social unrest could trigger an autocratic government to suppress opposition forces and thus make a democratization process *less* likely. At the same time, social unrest also *raises* the government's incentives to buy external support via development aid.[14] Such a spurious negative correlation between democratization and new aid donorship could lead to a downward bias of our OLS results. While many endogeneity concerns can be mitigated through

[12] We expect that countries have a low probability to start an aid initiative just after reaching independence, but this probability is likely to increase over time in a process of institution building.

[13] A country is coded as democratic if it is considered as "Free" or "Partially Free" by Freedom House (2016) and receives a positive score in the Polity IV database (Marshall, Gurr and Jaggers, 2016). Also following Acemoglu et al. (2019), we fill missing entries in in one of these data sources with the dichotomous democracy measure of Cheibub, Gandhi and Vreeland (2010), which has been updated by Bjørnskov and Rode (2020), and adopt all manual corrections suggested by Acemoglu et al. (2019). See maps in Online Appendix A3 for a graphical representation of the resulting measure.

[14] This is also visible in the extent of aid given. For example, the pro-democracy demonstrations on Beijing's Tian'anmen Square in 1989 triggered a sharp response by the Chinese government which made democratization less likely. At the same time, the Chinese government increased its development aid to buy political support from recipient countries to shield China against pressure from Western countries in international fora (Dreher and Fuchs, 2015).

the inclusion of control variables, the risk of simultaneity bias stemming from unobserved variables that vary across countries and time remains.

To address endogeneity concerns, we employ an instrumental-variables approach suggested by Acemoglu et al. (2019). Their instrumental variable builds on the idea that democratization processes often result from regional waves of democratization (Huntington, 1991, Markoff, 1996). For example, countries in Latin America and the Caribbean experienced a wave of reversal from democracy in the 1970s and moved collectively back to democracy in the late 1980s and early 1990s. More recently, the Arab Spring began in 2010 in Tunisia and quickly spread over to other countries in the Middle East and North Africa. The dominant explanation in the literature for these waves of democratization is that democratization processes can influence citizens' demand for democracy in countries with a similar culture, political history, and with close informational ties.

Building on this argument, we exploit exogenous variation in democracy that results from regional waves of democratization. To do so, we group countries according to the seven geographic regions of the World Bank Country Classification (World Bank, 2016).[15] The instrumental variable $Z_{i,t}$ is then constructed as the lagged average level of democracy within a peer group of countries. Algebraically, this can be written as

$$Z_{it} = \frac{1}{n} \sum_{j=1}^{n} D_{jt-1}, \tag{2}$$

where n signifies the number of countries j in the peer group of country i. Following Acemoglu et al. (2019), we define the peer group as all countries j within the same region whose regime type coincides with i's regime type at the beginning of the sample period. For countries that reached independence after 1950, we determine the peer group at the respective year of independence. The resulting instrumental variable is a continuous measure that ranges from 0 to 1.

The instrumental variable is excludable if the regional wave of democratization Z_{it} has no effect on a country's likelihood to initiate an aid program other than through its political regime type.[16] While it is hard to come up with arguments why the exclusion restriction could be violated, we discuss likely concerns. First, it is possible that not only democracy, but also aid donorship moves in regional waves. If there are regional waves of aid donorship, these could spread across the same channels as democracy and be driven by the same domestic forces. For instance, it is possible that the demand for more civilian rights and the demand

[15]The seven world regions are East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa.

[16]Although we believe that our instrument for democracy is a valid instrument for a range of other dependent variables that could affect aid donorship, such as economic growth as analyzed in Acemoglu et al. (2019), endogeneity via such transmission channels does not threaten the identification of the total, direct and indirect, effect of democracy on aid donorship.

for development aid are driven by the same moral forces within the population (see Lumsdaine, 1993, for a similar argument). Since development cooperation is a low-salience issue in domestic politics (Lundsgaarde, 2013, Szent-Iványi and Lightfoot, 2015), we judge such a violation of the exclusion restriction unlikely but possible.

Second, it could be possible that regional economic booms both cause regional waves of democratization and increase the likelihood of any single country to begin a development aid program due to increased income. However, Acemoglu et al. (2019) note that scholars agree that waves of regional democratization are not caused by regional economic trends. This would imply that while economic growth in any single country might increase its likelihood to democratize, regional waves of democratization are exogenous to a country's current income level. The argument seems plausible since channels by which democratization waves spread are likely orthogonal to regional economic trends. Nevertheless, we test both potential violations of the exclusion restrictions below.

We run specifications with and without the following control variables.[17] First, we include a country's government share of GDP to control for the availability of government resources to start an aid program (Bueno de Mesquita and Smith, 2009). Second, we control for the political distance vis-à-vis the United States (measured using voting behavior in the United Nations).[18] We expect countries that are less distant to the United States to be more likely to be convinced (or coerced) to follow the United States' model in setting up an aid program. Third, we use logged total population size in expectation that larger countries are more willing to give aid, while smaller countries have stronger incentives to free-ride on the aid efforts of their larger peers. Fourth, trade openness (defined as the sum of exports and imports as a percentage of GDP) controls for domestic business interests in setting up an aid program. Finally, a binary variable that marks every year during which a country was involved in an internal or internalized conflict over territory allows us to control for a country's interest in buying political support through aid.[19]

Table 1 provides descriptive statistics on the variables used in this paper. On average, one percent of countries that have not yet become aid donors start aid giving in a given year. Online Appendix A4 displays the correlation between our variables. Finally, Online Appendix A5 provides details on the definitions and sources of all variables employed in the analysis.

[17]Data from Gleditsch et al. (2002), Voeten, Strezhnev and Bailey (2009), Themnér and Wallensteen (2013), Feenstra, Inklaar and Timmer (2015), Bailey, Strezhnev and Voeten (2017).

[18]United Nations General Assembly voting data is frequently used to measure political relations between countries (e.g. Alesina and Dollar, 2000, Dreher, Nunnenkamp and Thiele, 2008). Specifically, we take the difference between the United States and the potential donor country of their ideal point estimate along a single dimension that captures the position vis-à-vis a "US-led liberal order."

[19]For example, the Africa Research Bulletin (2017, 21487) notes that "Morocco is now using mega-projects to mend ties with East African countries long at odds with Rabat over the Western Sahara issue."

III. Results

A. Main Results

Table 2 presents our main results. As a benchmark, in columns 1–2 we show the additive effects of democracy and per-capita income on aid donorship without interaction. We start with ordinary-least squares (OLS) regressions in column 1 and apply the instrumental-variables strategy using two-stage least-squares (2SLS) regressions in column 2.[20] The instrument is powerful as suggested by the first-stage F statistic which is above the rule-of-thumb value of ten. The results show a positive relationship between a country's income level and the likelihood of becoming an aid donor. The corresponding coefficient is statistically significant at the one-percent level in both specifications. Quantitatively, a country that is twice as rich, such as Germany compared to Guatemala in 1950, has a probability of becoming an aid donor that is 1.1 percentage point higher (column 2).[21] Given that the average probability of initiating aid giving is also 1.1 percent, this effect is sizable.

At the same time, we find no evidence that democracies are, on average, more likely to initiate aid giving. The corresponding coefficient on democracy is even significantly negative in column 1, suggesting that countries are less likely to initiate aid giving when they are under democratic rule. However, according to the 2SLS results in column 2, the coefficient on democracy is close to zero and does not reach statistical significance at conventional levels. This considerably less negative 2SLS estimate is in line with the expected downward bias of OLS caused by omitted third variables (e.g., social unrest that causes both a shift towards authoritarianism and an aid program to buy political support).

To test our hypothesis that democratic institutions make it unlikely that poorer countries become aid donors, we replicate the specifications from columns 1–2 while adding an interaction of democracy and income. As the results presented in columns 3–4 show, the coefficient on the interaction between democracy and per-capita GDP is—in line with our expectations—always positive and statistically significant at least at the five-percent level.

Our main findings are largely unaffected when we include the set of control variables in columns 5–6 of Table 2. Concerning the controls, we find that countries that are politically distant to the United States are less likely to initiate aid giving. Being one ideal point closer to the United States, such as Israel compared to Cuba in 1960, increases the likelihood of setting up the first aid institution by 1.2 percentage points (column 6). Population size, trade openness, government share of GDP and intrastate conflict over territory do not appear to robustly affect aid initiation, at conventional levels of statistical significance.

The upper left panel of Figure 3 visualizes the heterogeneous effects based on

[20] We report the corresponding first-stage regression results in Online Appendix B1.
[21] 0.0155*ln(2).

the results in column 6 of Table 2. Using the 90% confidence interval, we find that democracies with a logged per-capita GDP above 9.8, such as Spain in 1980, have a significantly larger probability to initiate aid giving than authoritarian countries at the same income level, such as Belarus or the Maldives in 2012. Conversely, democracies with a logged per-capita GDP below 7, such as Mali in 1996, are significantly less likely to become aid donors than their authoritarian counterparts, such as Benin or China in 1960. This supports our hypothesis that democratic institutions promote aid initiation in richer countries, while they prevent poorer countries from becoming an aid donor. We also evaluate the impact of democracy at the sample median of (log) per-capita GDP, 8.3 (see vertical line in Figure 3). Again in line with the expected downward bias of OLS, the marginal effect at median income is larger in the 2SLS (0.0230) than in the OLS estimation (-0.0038). Since the 90% interval plotted in the upper left panel of Figure 3 includes 0, we conclude that a democracy with an average income level is not more or less likely than an authoritarian regime to initiate aid giving.

Columns 7 and 8 of Table 2 show regression results for the broad definition of aid donorship based on the year of the first aid delivery—rather than for the narrow definition of aid donorship based on the year of the first setup of an institution that manages aid giving. Again, we find a positive coefficient on the interaction of income and democracy, which reaches statistical significance at the one-percent level in our preferred specification where we control for endogeneity (column 8). Among high-income countries, democracies are more likely to provide their first aid project, whereas among poorer countries authoritarian regimes are more likely to start aid giving. We plot the corresponding marginal effects with 90% confidence interval in the upper right panel of Figure 3.

Causal identification with 2SLS requires that the exclusion restriction is satisfied. As discussed in Section 2, there is little reason to expect that the exclusion restriction is violated in our case. Nevertheless, we test the robustness of our results against potential violations.

First, if the initiation of aid initiatives follows regional waves that run in parallel to democratization waves, then our democracy instrument would not be excludable. To control for regional waves of aid donorship, we introduce a spatial lag of our dependent variable. In columns 1 and 2 of Table 3, we use the inverse geographical distance between countries as weights.[22] In column 3 and 4, we apply a spatial lag of aid donorship based on the weighting mechanism of our democracy instrument, i.e., building the weighted average of aid donorship among the peer group of countries j within the same geographic region and a similar political history as country i. The respective inclusion of each measure does not affect our main findings. This makes us confident that our main results are not driven by a spurious correlation caused by regional waves of aid donorship.

[22] A significantly positive coefficient on the spatial lag could either hint at competition, learning, or emulation as drivers of policy diffusion. For example, Gulrajani and Swiss (2017) explain the spread of aid donorship with a normative diffusion process in which countries strive to graduate from recipients to donors to signal "developed country status."

Second, the exclusion restriction would be violated if regional economic trends were the underlying drivers of both waves of democratization and an increase in the regional share of donors. We therefore include a spatial lag of GDP, which we first weight by geographic distance (column 5 and 6) and then by democracy peer group (column 7 and 8). Our main findings also prove robust to this test. It seems therefore unlikely that regional economic trends bias our analysis.[23]

Finally, it is possible that the selection of our democracy measure drives our findings. We therefore test the robustness of our results by replacing our baseline measure based on Acemoglu et al. (2019) with alternative measures of political institutions. First, we use the Polity 2 score of the Polity IV project (Marshall, Gurr and Jaggers, 2016) and measure democracy on a 21-point scale ranging from 0 (hereditary monarchy) to 1 (consolidated democracy). Second, we employ the binary Democracy-Dictatorship (DD) index (Cheibub, Gandhi and Vreeland, 2010, Bjørnskov and Rode, 2020). Countries count as democracies if the executive is directly or indirectly elected via the legislature, the legislature itself is directly elected, a multi-party system exists, and the executive power alternates between different parties under the same electoral rule.

The bottom four graphs in Figure 3 display the marginal effect of these alternative measures of democracy on aid institution across levels of income. Using 2SLS, we find in all but one specification the expected pattern. The exception is the Polity IV regression with the broad definition of aid donorship, in which case the regime indicator does not reach statistical significance across all income levels. We conclude that our main findings are robust to the choice of the specific democracy measure with our preferred, narrow measure of aid donorship. However, the extent to which our findings hold for the broad definition of aid donorship depends on the chosen measure of democracy. We come to similar conclusions when we analyze the robustness to democracy measurement with OLS rather than with 2SLS regressions (Online Appendix B7).[24]

B. Extensions and further robustness tests

We test the robustness of our main results with respect to the treatment of missing values, temporal aggregation, the set of control variables, and the exclusion of EU accession countries. First, to test robustness with respect to the treatment of missing values, we no longer assume that all countries missing from our dataset on aid donorship have not yet provided aid. Second, we run regressions with

[23]Online C2 replicates Table 3 for the broad definition of aid donorship. We come to the same conclusions.

[24]In Online Appendix B7, we show and discuss results for three additional measures of democracy. As third alternative measure, we use data from Marshall, Gurr and Jaggers (2016) and Banks and Wilson (2016) and include the size of countries' winning coalition, defined as the group of citizens whose support the leader needs to retain office (Bueno de Mesquita et al., 2005, Bueno de Mesquita and Smith, 2009). The fourth variable is the winning coalition size calculated based on the population share of ethnic groups that are included in a country's executive (Bormann, Eichenauer and Hug, 2017, Cederman, Wimmer and Min, 2009). Fifth, we add an index of electoral democracy from the V-Dem project (Coppedge et al., 2016), which measures the degree to which electoral competition makes rulers responsive to citizens.

our data averaged over three-year periods rather than using annual observations. Both robustness tests confirm our earlier findings (Online Appendix B3).

Third, we also test the robustness of our main results against several extensions of the set of explanatory variables employed. One, we control for political distance to the Soviet Union, or its legal successor Russia after its dissolution, in addition to the political distance to the United States. Two, we include a binary variable that takes a value of one in years prior to 1991 to account for different dynamics during the Cold War.[25] Three, we control for years during which a country is involved in a militarized conflict (data from Maoz et al., 2019, Palmer et al., 2020). Governments may use aid to buy international support during wars and other militarized conflicts (Lundborg, 1998). Last, we include a variable for the total population living in former colonies of a country (data from Mayer and Zignago, 2011, Feenstra, Inklaar and Timmer, 2015, 2019). Countries could have stronger incentives to establish a development aid initiative as a substitute for their colonies when they reach independence. All of these variables, however, do not appear to matter for aid initiation (see Online Appendix B4). Our main findings are qualitatively unchanged.

Finally, we investigate whether our results could be driven by EU accession countries. Countries could have introduced an aid program to please the EU Commission and member states in view of the accession negotiations. Szent-Iványi and Lightfoot (2015, 21) note that "[t]he EU has played an especially important role in 'convincing' [...] ECE [Eastern and Central European] countries to restart their international development policies during the accession negotiations."[26] When we exclude these countries and those with ongoing accession negotiations, we come to the same qualitative conclusions (see Online Appendix B5). This further increases our confidence in the findings.

C. Democracy and aid volumes

Having so far focused on the initial decision to become an aid donor, we now test whether a country's political institutions also affect the size of its development cooperation once it belongs to the group of aid donors. Specifically, we re-run our main analysis with a new dependent variable: the donor country's aid volume. In analogy to our previous line of argumentation, we expect that democratic institutions dampen the volume of aid provided by poorer democracies and increase aid volumes by richer democracies. The analysis of aid volumes comes with the caveat that data are not available for a large set of countries. We did not attempt to collect a comprehensive database on aid volumes, as the gathering of data on the much simpler aid initiation variables for a global sample since 1945 already proved to be very challenging. The results should thus be interpreted

[25]The end of the Cold War is said to have reduced the strategic motives for giving aid (e.g., Meernik, Krueger and Poe, 1998) and led to a reduction of aid effort by OECD countries (Tingley, 2010).

[26]This was confirmed by our own expert interview with an official at Poland's Department of Development Cooperation, Warsaw, September 6, 2017.

with caution as they may be subject to sample selection biases. As highlighted in the introduction to this paper, democratic countries are more transparent about their aid activities than authoritarian regimes.

Our new dependent variables are a donor country's logged annual (1) total ODA disbursements as reported by the OECD (2019), and (2) total aid commitments as reported by AidData (Tierney et al., 2011, AidData, 2017), both measured in millions of constant US dollars. Figure 4 graphically displays the results from OLS regressions.[27] Specifically, we show the marginal effects of democracy on the extent of aid across income levels for both measures of aid volumes. We obtain a consistent pattern. According to the 90% confidence interval, democratic institutions reduce aid commitments if the donor country has a logged income below 9.3 ($\approx$US\$10,938), and increase it above 10.6 ($\approx$US\$40,135).[28] To give an example, democratic countries with an income just above the latter threshold, such as Denmark in 1999, have significantly larger aid budgets than similarly rich autocratic countries such as Saudi Arabia. As can be seen from the vertical lines that again indicate the median income of all countries in our sample, a democracy with an average income level provides significantly more aid than an authoritarian regime. Summing up, we find that richer democratic donor countries provide more aid, while poorer democracies give less aid than their authoritarian counterparts, which is in line with our findings for aid initiation.

IV. Conclusions

In this article, we have shed a new perspective on aid giving. Rather than taking the set of donors of development aid as exogenous, we have built a new global database on aid donorship and analyzed the determinants of countries' decision to become an aid donor in the first place. We argued and showed empirically that democratic institutions support the setup of an aid program in richer countries but undermine its establishment in poorer countries——in line with the theoretical expectation that public opinion on aid is more likely to affect political decisions in democracies than in authoritarian regimes. To address endogeneity concerns, we followed Acemoglu et al. (2019) and built an instrumental variable based on the idea that democratization spreads in waves. Our main finding is robust to alternative treatment of missing values, changes in temporal aggregation, a broader definition of our dependent variable, several extensions of the set of explanatory variables, and the exclusion of EU accession countries as potential outliers. In line with these findings on donor status, we also find that poorer democracies provide less aid funding than poorer autocracies and, conversely, that richer democracies provide more aid funding than richer autocracies.

[27] We provide full regression results in Online Appendix B6. Note that we do not report 2SLS results since the power of our instrument is low in our aid volume regressions, which rely on a much smaller number of countries and years compared to the aid initiation regressions above.

[28] Analogously, democratic institutions reduce aid disbursements if the donor country has a logged income below 9.4, and increase it above 19.6.

Our results provide a starting point for further research. First, while our analysis with the limited available aid budget data suggested that the mechanism discussed in this paper applies to the extent of aid as well, researchers should re-investigate the determinants of the intensive margin of aid with a global sample of donors once data availability allows such investigations. Second, while the focus of our work is on bilateral aid, future research could also study the role of political institutions in the emergence of multilateral donors (Pratt, 2017) and the creation of trust funds (Eichenauer and Reinsberg, 2017). Finally, in the same way as political institutions appeared to affect a government's decision to start an aid initiative, more research is warranted on whether political regime type also affects the quality of aid that is being provided (Faust, 2008). Initial studies indeed suggest that the source of funding—originating from a more or less democratic donor——matters for the effects of aid (Bermeo, 2011, Isaksson and Kotsadam, 2018). In times in which autocracies grow and countries experience autocratic reversals (or at least more vivid populist movements), this is a particularly relevant avenue for future research.

REFERENCES

Acemoglu, Daron, Suresh Naidu, Pascual Restrepo, and James A. Robinson. 2019. "Democracy Does Cause Growth." *Journal of Political Economy*, 127(1): 47–100.

Africa Research Bulletin. 2017. "MOROCCO: Seeking Friends." *Africa Research Bulletin*, 53(11): 21487B–21489C.

Ai, Chunrong, and Edward C. Norton. 2003. "Interaction Terms in Logit and Probit Models." *Economics Letters*, 80(1): 123–129.

AidData. 2017. "AidDataCore˙ResearchRelease˙Level1˙v3.1 Research Releases [dataset]." Williamsburg, VA: AidData. Available at: `https://www.aiddata.org/data/aiddata-core-research-release-level-1-3-1` (accessed April 27, 2016).

Alesina, Alberto, and David Dollar. 2000. "Who Gives Foreign Aid to Whom and Why?" *Journal of Economic Growth*, 5(1): 33–63.

Asmus, Gerda, Andreas Fuchs, and Angelika Müller. 2020. "BRICS and Foreign Aid." In *The Political Economy of the BRICS Countries, Volume 3: BRICS and the Global Economy.* , ed. Soo Yeon Kim. Singapore:World Scientific.

Bailey, Michael A., Anton Strezhnev, and Erik Voeten. 2017. "Estimating Dynamic State Preferences from United Nations Voting Data." *Journal of Conflict Resolution*, 61(2): 430–456.

Banks, Arthur S., and Kenneth A. Wilson. 2016. "Cross-National Time-Series Data Archive." Databanks International. Available at: `http://www.cntsdata.com` (accessed November 28, 2016).

Barder, Owen, and Stephan Klasen. 2014. "Ending the Exaggeration of Aid: A Modest Proposal." Washington, DC: Center for Global Development. Available at: `http://www.cgdev.org/blog/ending-exaggeration-aid-modest-proposal` (accessed March 3, 2016).

Bearce, David H., and Daniel C. Tirone. 2010. "Foreign Aid Effectiveness and the Strategic Goals of Donor Governments." *Journal of Politics*, 72(3): 837–851.

Bermeo, Sarah B. 2011. "Foreign Aid and Regime Change: A Role for Donor Intent." *World Development*, 39(11): 2021–2031.

Bermeo, Sarah B. 2017. "Aid Allocation and Targeted Development in an Increasingly Connected World." *International Organization*, 71(4): 735–766.

Bjørnskov, Christian, and Martin Rode. 2020. "Regime Types and Regime Change: A New Dataset on Democracy, Coups, and Political Institutions." *Review of International Organizations*, 15: 531–551.

Bormann, Nils-Christian, Vera Z. Eichenauer, and Simon Hug. 2017. "Ethnic Winning Coalitions and the Political Economy of Aid." Paper presented at the 2017 Conference on the Political Economy of International Organizations, Bern, Switzerland.

Budjan, Angelika J., and Andreas Fuchs. 2020. "New Aid Donors Database [dataset]." Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2020-06-26. Available at: https://doi.org/10.3886/E120068V1.

Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2005. "The Logic of Political Survival." Cambridge, MA: MIT Press.

Bueno de Mesquita, Bruce, and Alastair Smith. 2007. "Foreign Aid and Policy Concessions." *Journal of Conflict Resolution*, 51(2): 251–284.

Bueno de Mesquita, Bruce, and Alastair Smith. 2009. "A Political Economy of Aid." *International Organization*, 63(2): 309–340.

Cederman, Lars-Erik, Andreas Wimmer, and Brian Min. 2009. "Ethnic politics and armed conflict. A configurational analysis of a new global dataset." *American Sociological Review*, 74(2): 316–337.

Chauvet, Lisa. 2003. "Socio-Political Instability and the Allocation of International Aid by Donors." *European Journal of Political Economy*, 19(1): 33–59.

Cheibub, José A., Jennifer Gandhi, and James R. Vreeland. 2010. "Democracy and Dictatorship Revisited." *Public Choice*, 143(1-2): 67–101.

Cheng, Zhiming, and Russell Smyth. 2016. "Why Give it Away When You Need it Yourself? Understanding Public Support for Foreign Aid in China." *Journal of Development Studies*, 52(1): 53–71.

Chong, Alberto, and Mark Gradstein. 2008. "What Determines Foreign Aid? The Donors' Perspective." *Journal of Development Economics*, 87(1): 1–13.

Coppedge, Michael, John Gerring, Staffan I. Lindberg, Svend-Erik Skaaning, Jan Teorell, David Altman, Frida Andersson, Michael Bernhard, M. Steven Fish, Adam Glynn, Allen Hicken, Carl Henrik Knutsen, Kelly McMann, Valeriya Mechkova, Farhad Miri, Pamela Paxton, Daniel Pemstein, Rachel Sigman, Jeffrey Staton, , and Brigitte Zimmerman. 2016. "V-Dem Codebook v6." Gothenburg, Sweden: Varieties of Democracy (V-Dem) Project. Available at: https://www.v-dem.net/en/data/archive/previous-data/data-version-6-2/ (accessed November 25, 2016).

Correlates of War Project. 2017. "State System Membership List v2016." Available at: https://correlatesofwar.org/data-sets/state-system-membership/states2016/at_download/file (accessed August 08, 2020).

Dietrich, Simone, Minhaj Mahmud, and Mattew S. Winters. 2018. "Foreign Aid, Foreign Policy, and Domestic Government Legitimacy: Experimental Evidence from Bangladesh." *Journal of Politics*, 80(1): 133–148.

Doucouliagos, Hristos. 2019. "The Politics of International Aid." In *The Oxford Handbook of Public Choice, Volume 2.* , ed. Roger D. Congleton, Bernard

Grofman and Stefan Voigt. Oxford, UK:Oxford University Press.

Doucouliagos, Hristos, and Martin Paldam. 2011. "The Ineffectiveness of Development Aid on Growth: An Update." *European Journal of Political Economy*, 27(2): 399–404.

Dreher, Axel, and Andreas Fuchs. 2015. "Rogue Aid? An Empirical Analysis of China's Aid Allocation." *Canadian Journal of Economics*, 48(3): 988–1023.

Dreher, Axel, Andreas Fuchs, and Sarah Langlotz. 2019. "The Effects of Foreign Aid on Refugee Flows." *European Economic Review*, 112: 127–147.

Dreher, Axel, Andreas Fuchs, Roland Hodler, Bradley C. Park, Paul Raschky, and Michael J. Tierney. 2019. "African Leaders and the Geography of China's Foreign Assistance." *Journal of Development Economics*, 140(1): 44–71.

Dreher, Axel, Jan-Egbert Sturm, and James Raymond Vreeland. 2009. "Development Aid and International Politics: Does Membership on the UN Security Council Influence World Bank Decisions?" *Journal of Development Economics*, 88(1): 1–18.

Dreher, Axel, Peter Nunnenkamp, and Rainer Thiele. 2008. "Does US Aid Buy UN General Assembly Votes? A Disaggregated Analysis." *Public Choice*, 136(1): 139–164.

Dreher, Axel, Peter Nunnenkamp, and Rainer Thiele. 2011. "Are 'New' Donors Different? Comparing the Allocation of Bilateral Aid Between NonDAC and DAC Donor Countries." *World Development*, 39(11): 1950–1968.

Dreher, Axel, Stephan Klasen, James R. Vreeland, and Erik Werker. 2013. "The Costs of Favoritism: Is Politically Driven Aid Less Effective?" *Economic Development and Cultural Change*, 62(1): 157–191.

Dudley, Leonard. 1979. "Foreign Aid and the Theory of Alliances." *Review of Economics and Statistics*, 61(4): 564–571.

Eichenauer, Vera Z., and Bernhard Reinsberg. 2017. "What Determines Earmarked Funding to International Development Organizations? Evidence from the New Multi-Bi Aid Data." *Review of International Organizations*, 12(2): 171–197.

Faust, Jörg. 2008. "Are More Democratic Donor Countries More Development Oriented? Domestic Institutions and External Development Promotion in OECD Countries." *World Development*, 36(3): 383–398.

Feenstra, Robert C., Robert Inklaar, and Marcel P. Timmer. 2015. "The Next Generation of the Penn World Table." *American Economic Review*, 105(10): 3150–3182.

Feenstra, Robert C., Robert Inklaar, and Marcel P. Timmer. 2019. "Penn World Tables V9.0 [dataset]." Groningen Growth and Development Centre. Available at: `http://dx.doi.org/10.15141/S5J01T` (accessed September 13, 2016).

Fleck, Robert, and Christopher Kilby. 2010. "Changing Aid Regimes? U.S.

Foreign Aid from the Cold War to the War on Terror." *Journal of Development Economics*, 91(2): 185–197.

Freedom House. 2016. "Freedom in the World: Democracy in Crisis." Washington, DC: Freedom House. Available at: `https://freedomhouse.org/report/freedom-world` (accessed October 9, 2016).

Fuchs, Andreas, and Krishna Chaitanya Vadlamannati. 2013. "The Needy Donor: An Empirical Analysis of India's Aid Motives." *World Development*, 44: 110–128.

Fuchs, Andreas, Axel Dreher, and Peter Nunnenkamp. 2014. "Determinants of Donor Generosity: A Survey of the Aid Budget Literature." *World Development*, 56(C): 172–199.

Gleditsch, Nils, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand. 2002. "Armed Conflict 1946–2001: A New Dataset." *Journal of Peace Research*, 39(5): 615–637.

Greene, William. 2010. "Testing Hypotheses about Interaction Terms in Nonlinear Models." *Economics Letters*, 107(2): 291–296.

Gulrajani, Nilima, and Liam Swiss. 2017. "Why do countries become donors? Assessing the drivers and implications of donor proliferation." ODI Working Paper. London, UK: Overseas Development Institute.

Hicks, Robert L., Bradley C. Parks, J. Timmons Roberts, and Michael J. Tierney. 2008. *Greening Aid? Understanding the Environmental Impact of Development Assistance.* Oxford, UK:Oxford University Press.

Human Development Report Office. 2018. "Human Development Indices and Indicators: 2018 Statistical Update." New York, NY: United Nations Development Programme.

Huntington, Samuel P. 1991. "The Third Wave: Democratization in the Late Twentieth Century." Norman, OK: University of Oklahoma Press.

Isaksson, Ann-Sofie, and Andreas Kotsadam. 2018. "Chinese Aid and Local Corruption." *Journal of Public Economics*, 159: 146–159.

Jablonski, Ryan S. 2014. "How Aid Targets Votes: the Impact of Electoral Incentives on Foreign Aid Distribution." *World Politics*, 66(2): 293–330.

Kersting, Erasmus, and Christopher Kilby. 2014. "Aid and Democracy Redux." *European Economic Review*, 67: 125–143.

Kilby, Christopher, and Axel Dreher. 2010. "The Impact of Aid on Growth Revisited: Do Donor Motives Matter?" *Economics Letters*, 107(3): 338–340.

Kuziemko, Ilyana, and Eric Werker. 2006. "How Much Is a Seat in the UN Security Council Worth? Foreign Aid and Bribery in the United Nations." *Journal of Political Economy*, 114(5): 905–930.

Lumsdaine, David H. 1993. "Moral Vision in International Politics: The Foreign Aid Regime, 1949–1989." Princeton, NJ: Princeton University Press.

Lumsdaine, David H., and James C. Schopf. 2007. "Changing Values and the Recent Rise in Korean Development Assistance." *Pacific Review*,

20(2): 221–255.

Lundborg, Per. 1998. "Foreign Aid and International Support as a Gift Exchange." *Economics & Politics*, 10(2): 127–142.

Lundsgaarde, Erik. 2013. "The Domestic Politics of Foreign Aid." London, UK: Routledge.

Maoz, Zeev, Paul L. Johnson, Jasper Kaplan, Fiona Ogunkoya, and Aaron P. Shreve. 2019. "The Dyadic Militarized Interstate Disputes (MIDs) Dataset Version 3.0: Logic, Characteristics, and Comparisons to Alternative Datasets." *Journal of Conflict Resolution*, 63(3): 811–835.

Markoff, John. 1996. *Waves of Democracy: Social Movements and Political Change.* Thousand Oaks, CA: Pine Forge Press.

Markovitz, Daniel, Austin Strange, and Dustin Tingley. 2019. "Foreign Aid and the Status Quo: Evidence from Pre-Marshall Plan Aid." *Chinese Journal of International Politics*, 12(4): 585–613.

Marshall, Monty G., Ted R. Gurr, and Keith Jaggers. 2016. "Polity IV Project: Political Regime Characteristics and Transitions, 1800-2015." Vienna, VA: Center for Systematic Peace. Available at: `http://www.systemicpeace.org/inscr/p4v2015.xls` (accessed October 7, 2016).

Martínez-Zarzoso, Inmaculada, Felicitas Nowak-Lehmann, Stephan Klasen, and Mario Larch. 2009. "Does German Development Aid Promote German Exports?" *German Economic Review*, 10(3): 317–338.

Mayer, Thierry, and Soledad Zignago. 2011. "Notes on CEPII's Distances Measures: The GeoDist Database." CEPII Working Paper 2011-25. Centre d'Études Prospectives et d'Informations Internationales. Available at: `http://www.cepii.fr/CEPII/en/bdd_modele/presentation.asp?id=6` (accessed October 7, 2016).

Meernik, James, Eric L. Krueger, and Steven C. Poe. 1998. "Testing Models of U.S. Foreign Policy: Foreign Aid during and after the Cold War." *Journal of Politics*, 60(1): 63–85.

Milner, Helen, and Dustin Tingley. 2013. "Public Opinion and Foreign Aid: A Review Essay." *International Interactions*, 39(3): 389–401.

Milner, Helen V., and Dustin Tingley. 2010. "The Political Economy of U.S. Foreign Aid: American Legislators and the Domestic Politics of Aid." *Economics & Politics*, 22(2): 200–232.

Neumayer, Eric. 2003. "What Factors Determine the Allocation of Aid by Arab Countries and Multilateral Agencies?" *Journal of Development Studies*, 39(4): 134–147.

Nielson, Daniel, Bradley Parks, and Michael Tierney. 2017. "International Organizations and Development Finance: Introduction to the Special Issue." *Review of International Organizations*, 12(2): 157–169.

Noël, Alain, and Jean-Philippe Thérien. 1995. "From Domestic to International Justice: The Welfare State and Foreign Aid." *International Organization*,

49(3): 523–553.

OECD. 2019. "Creditor Reporting System." Paris, France: Organisation for Economic Co-operation and Development. Available at: `https://stats.oecd.org/Index.aspx?DataSetCode=CRS1` (accessed March 9, 2019).

Palmer, Glenn, Vito D'Orazio, Michael R. Kenwick, and Roseanne W. McManus. 2020. "Updating the Militarized Interstate Dispute Data: A Response to Gibler, Miller, and Little." *International Studies Quarterly*, 64(2): 469–475.

Paxton, Pamela, and Stephen Knack. 2012. "Individual and Country-level Factors Affecting Support for Foreign Aid." *International Political Science Review*, 33(2): 171–192.

Pratt, Tyler. 2017. "Angling for Influence: Institutional Proliferation in Development Banking." *Paper presented at the 10th Annual Conference on the Political Economy of International Organizations, Bern, Switzerland, January 12-14*.

Publish What You Fund. 2018. "Aid Transparency Index: 2018 Index." *Washington, DC: Publish What You Fund*.

Sandler, Todd, and Daniel G. Arce. 2007. "New Face of Development Assistance: Public Goods and Changing Ethics." *Journal of International Development*, 19(4): 527–544.

Semrau, Finn Ole, and Rainer Thiele. 2017. "Brazil's Development Cooperation: Following in China's and India's Footsteps?" *Journal of International Development*, 29(3): 287–307.

Strange, Austin, Axel Dreher, Andreas Fuchs, Bradley Parks, and Michael J. Tierney. 2017. "Tracking Underreported Financial Flows: China's Development Finance and the Aid-Conflict Nexus Revisited." *Journal of Conflict Resolution*, 61(5): 935–963.

Szent-Iványi, Balázs, and Simon Lightfoot. 2015. "New Europe's New Development Aid." New York, NY: Routledge.

Themnér, Lotta, and Peter Wallensteen. 2013. "Armed Conflicts, 1946–2012." *Journal of Peace Research*, 50(4): 509–521.

Tierney, Michael J., Daniel L. Nielson, Darren G. Hawkins, J. Timmons Roberts, Michael G. Findley, Ryan M. Powers, Bradley Parks, Sven E. Wilson, and Robert Hicks. 2011. "More Dollars than Sense: Refining Our Knowledge of Development Finance Using AidData." *World Development*, 39(11): 1891–1906.

Tingley, Dustin. 2010. "Donors and Domestic Politics: Political Influences on Foreign Aid Effort." *Quarterly Review of Economics and Finance*, 50(1): 40–49.

Voeten, Eric, Anton Strezhnev, and Michael Bailey. 2009. "United Nations General Assembly Voting Data [dataset]." Harvard Dataverse, V14. Available at: `https://doi.org/10.7910/DVN/LEJUQZ` (accessed September 14, 2016).

Weidmann, Nils B, and Kristian Skrede Gleditsch. 2016. "Cshapes - GIS Vector Dataset v.0.6." Available at: `http://downloads.weidmann.ws/cshapes/Shapefiles/cshapes_0.6.zip` (accessed August 18, 2020).

Weidmann, Nils B, Doreen Kuse, and Kristian Skrede Gleditsch. 2010. "The Geography of the International System: The CShapes Dataset." *International Organization*, 36(1): 86–106.

Werker, Eric D., Faisal Z. Ahmed, and Charles Cohen. 2009. "How is Foreign Aid Spent? Evidence from a Natural Experiment." *American Economic Journal: Macroeconomics*, 1(2): 225–244.

World Bank. 2016. "World Development Indicators." Washington, DC: World Bank. Available at: `http://databank.worldbank.org/data/download/WDI_csv.zip` (accessed October 17, 2016).

Table 1— Descriptive statistics

Variable names	Observations	Mean	Std. Dev.	Min	Max
Dependent variables					
Aid donorship (broad definition)	4,601	0.0111	0.105	0	1
Aid donorship (narrow definition)	5,193	0.0114	0.106	0	1
(log) Aid disbursements (OECD)	1,344	6.655	1.971	0.308	10.45
(log) Aid commitments (AidData)	977	6.577	2.284	0.00171	10.44
Explanatory variables (in alphabetical order)					
Cold War dummy	5,193	0.570	0.495	0	1
(log) Colony population	4,941	0.919	3.761	0	20.38
Democracy (baseline)	5,193	0.445	0.497	0	1
Democracy (DD)	5,140	0.400	0.490	0	1
Democracy (ethnic winning coalition)	4,678	0.803	0.257	0.0200	1
Democracy (electoral democracy)	4,797	0.401	0.255	0.0158	0.933
Democracy (instrument)	5,193	0.425	0.370	0	1
Democracy (Polity IV)	4,929	0.500	0.356	0	1
Democracy (winning coalition)	4,865	0.544	0.296	0	1
Donor spatial lag (by geographic distance)	5,193	0.140	0.0894	0	0.545
Donor spatial lag (by democracy peer group)	5,045	0.328	0.328	0	1
GDP spatial lag (by geographic distance)	5,193	8.786	0.640	6.407	10.14
GDP spatial lag (by democracy peer group)	5,125	8.671	0.836	6.182	10.97
Duration	5,193	28.88	16.72	3	71
(log) GDP per capita	5,193	8.313	1.117	5.085	12.33
Government share of GDP	5,193	0.149	0.0729	0.0144	0.944
Intrastate conflict over territory	5,193	0.0416	0.200	0	1
Militarized interstate dispute	5,193	0.126	0.332	0	1
Openness	5,193	0.696	0.436	0.0359	4.110
Political distance to Russia	5,193	1.698	1.164	0.0010	5.215
Political distance to US	5,193	2.509	1.037	0	4.986
(log) Population	5,193	15.41	1.458	11.72	19.98

Notes: The descriptive statistics are based on the estimation sample of Table 2, column 6, for all variables except from (log) Aid disbursement (OECD) and (log) Aid commitments (AidData). The latter are based on regression samples from Appendix B7.

Table 2— Democracy, income, and aid donorship (1951-2015, baseline)

	(1) OLS FE Narrow	(2) 2SLS FE Narrow	(3) OLS FE Narrow	(4) 2SLS FE Narrow	(5) OLS FE Narrow	(6) 2SLS FE Narrow	(7) OLS FE Broad	(8) 2SLS FE Broad
Democracy	-0.0068	-0.0008	-0.0810	-0.4119	-0.0771	-0.4580	-0.0428	-0.3123
	(0.0031)	(0.0269)	(0.0317)	(0.0997)	(0.0350)	(0.1274)	(0.0332)	(0.1034)
(log) GDP per capita	0.0148	0.0155	0.0104	-0.0090	0.0059	-0.0144	0.0091	-0.0047
	(0.0049)	(0.0051)	(0.0049)	(0.0080)	(0.0051)	(0.0089)	(0.0061)	(0.0080)
Democracy # (log) GDP per capita			0.0093	0.0524	0.0088	0.0580	0.0042	0.0408
			(0.0041)	(0.0141)	(0.0045)	(0.0178)	(0.0044)	(0.0142)
Government share of GDP					-0.0175	-0.0090	-0.0114	-0.0047
					(0.0186)	(0.0222)	(0.0172)	(0.0198)
Political distance to USA					-0.0109	-0.0116	-0.0087	-0.0090
					(0.0044)	(0.0051)	(0.0050)	(0.0058)
(log) Population					-0.0284	0.0010	-0.0427	-0.0241
					(0.0211)	(0.0227)	(0.0143)	(0.0148)
Openness					0.0067	0.0124	0.0013	0.0033
					(0.0063)	(0.0071)	(0.0059)	(0.0066)
Intrastate conflict over territory					0.0145	0.0209	0.0158	0.0261
					(0.0146)	(0.0159)	(0.0196)	(0.0205)
Country and year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duration dependence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,502	5,377	5,502	5,377	5,300	5,193	4,764	4,658
Number of countries	147	145	147	145	141	140	131	126
R-squared	0.0261		0.0267		0.0272		0.0253	
Kleibergen-Paap F-stat		22.54		10.19		11.76		13.10

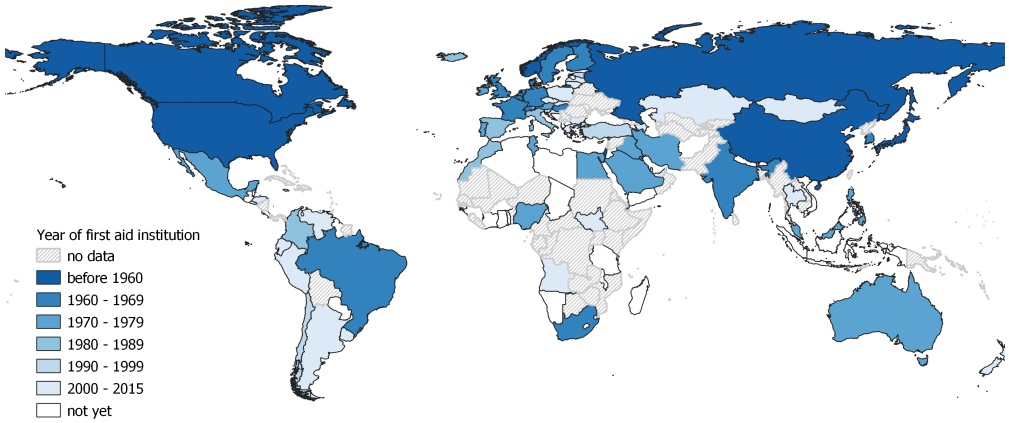
Notes: The dependent variable in columns 1–6 is a binary variable that takes a value of one in the year a country establishes its first aid institution (narrow definition). The dependent variable in columns 7–8 is a binary variable that takes a value of one in the year of undertaking the very first activity of development aid (broad definition). Standard errors are clustered at the country level and reported in parentheses.

Table 3— Democracy, income, and aid donorship (1951-2015, controlled for spatial lags)

	(1) OLS FE	(2) 2SLS FE	(3) OLS FE	(4) 2SLS FE	(5) OLS FE	(6) 2SLS FE	(7) OLS FE	(8) 2SLS FE
Democracy	-0.0788	-0.4752	-0.0753	-0.3703	-0.0720	-0.4536	-0.0687	-0.4638
	(0.0339)	(0.1255)	(0.0358)	(0.1156)	(0.0349)	(0.1285)	(0.0360)	(0.1314)
(log) GDP per capita	0.0049	-0.0169	0.0074	-0.0068	0.0075	-0.0138	0.0026	-0.0187
	(0.0054)	(0.0090)	(0.0054)	(0.0067)	(0.0055)	(0.0091)	(0.0054)	(0.0095)
Democracy	0.0090	0.0605	0.0088	0.0474	0.0082	0.0575	0.0077	0.0594
# (log) GDP per capita	(0.0043)	(0.0173)	(0.0046)	(0.0156)	(0.0045)	(0.0179)	(0.0046)	(0.0183)
Donor spatial lag	0.3823	0.3922						
(by geographic distance)	(0.1097)	(0.1059)						
Donor spatial lag			0.0254	0.0216				
(by democracy peer group)			(0.0127)	(0.0137)				
GDP spatial lag					-0.0183	-0.0077		
(by geographic distance)					(0.0194)	(0.0203)		
GDP spatial lag							0.0167	0.0137
(by democracy peer group)							(0.0095)	(0.0091)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE and year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duration dependence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,193	5,193	5,045	5,045	5,193	5,193	5,125	5,125
Number of countries	140	140	134	134	140	140	138	138
R-squared	0.0476		0.0434		0.0418		0.0427	
Kleibergen-Paap F-stat		11.75		10.06		11.73		12.88

Notes: The dependent variable is a binary variable that takes a value of one in the year a country establishes its first aid institution (narrow definition). We show the corresponding results for the broad definition in Online Appendix C2. All regressions include all control variables as in columns 5–8 of Table 2. Standard errors are clustered at the country level and reported in parentheses.

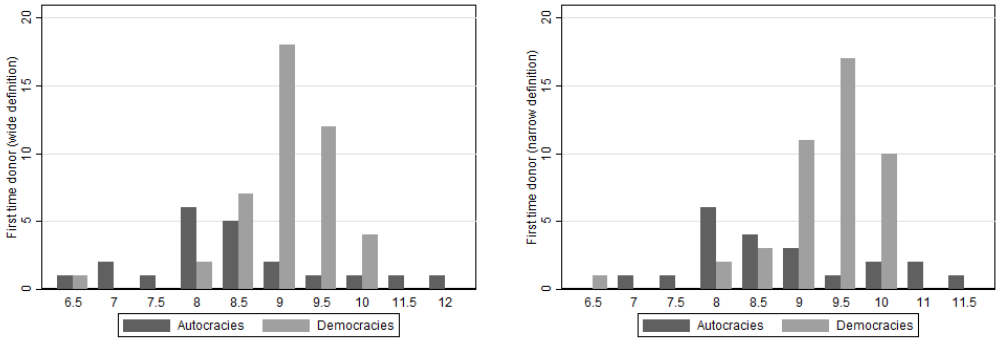
Figure 1. Year of first aid institution by country (1950–2015)



Source: Authors' dataset (see text and appendix for details). Country boundaries originate from the Cshapes dataset (Weidmann, Kuse and Gleditsch, 2010, Weidmann and Gleditsch, 2016).

Figure 2. Aid initiation by income group

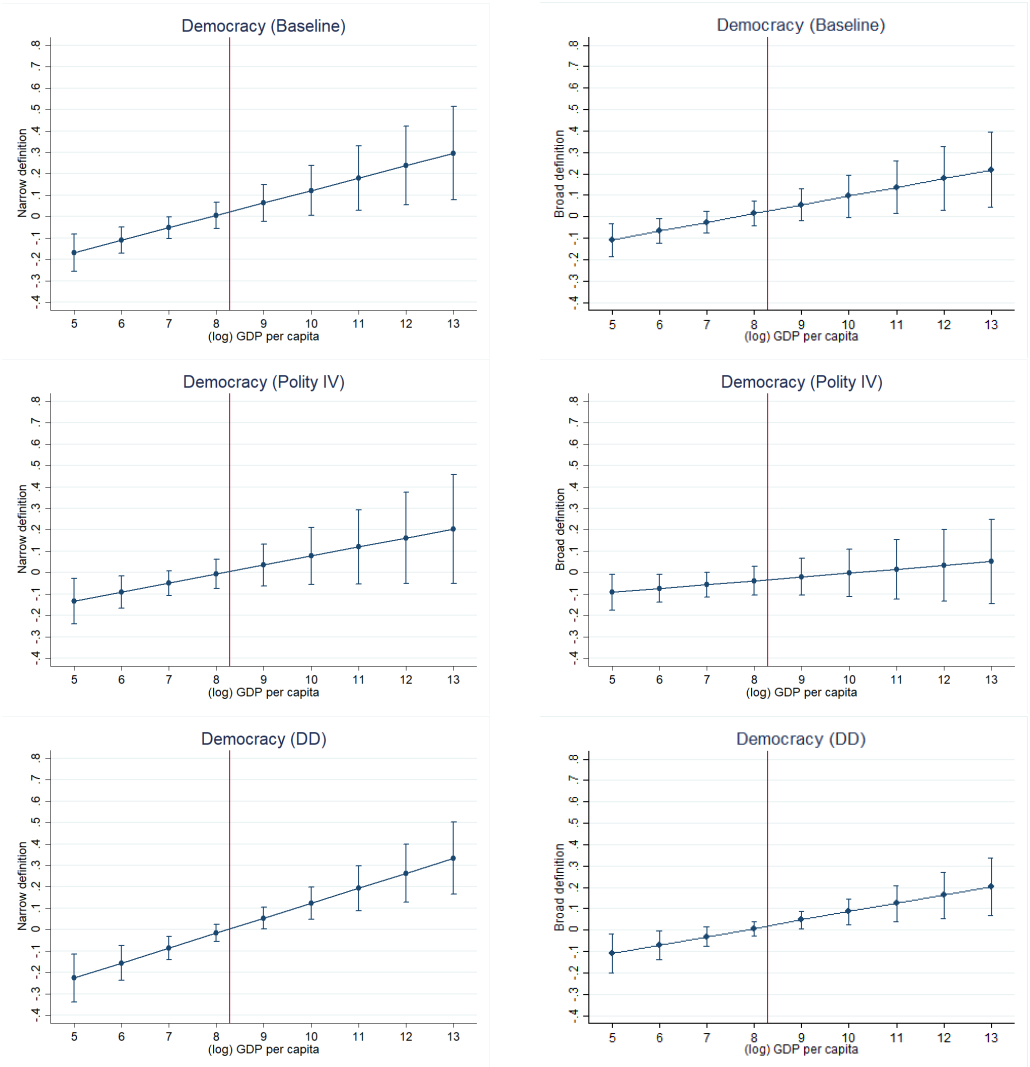
(a) Panel a: First aid delivery (broad definition) (b) Panel b: First aid institution (narrow definition)



Source: Authors' dataset (see text and appendix for details). Data on logged GDP per capita from Penn World Tables 9.0 (Feenstra et al. 2015, 2019).

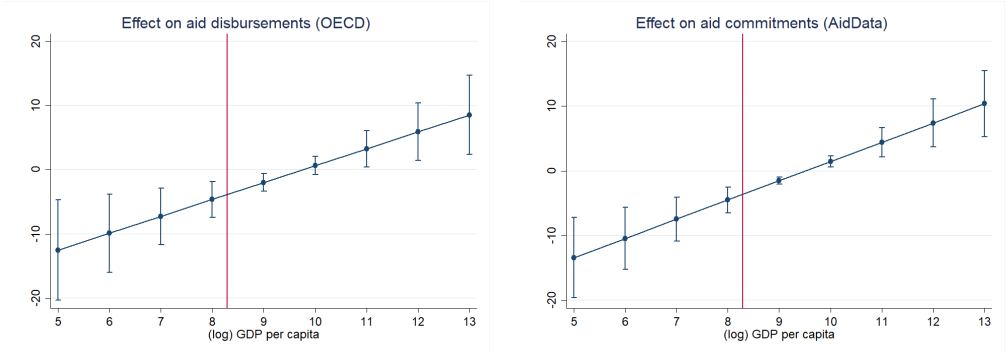
Figure 3. Marginal effect of democracy on aid donorship across income levels

(a) First aid institution (narrow definition) (b) First aid delivery (broad definition)



Notes: The figure displays the marginal effects of democracy on a country's likelihood to become an aid donor (left panel using the narrow definition; right panel using the broad defintion) at different levels of per-capita income based on 2SLS regressions. Each subfigure uses one of three alternative measures of democracy, as indicated in its header. *Democracy (baseline)* is our baseline measure of democracy, i.e., the democracy dummy as in Acemoglu et al. (2019), *Democracy (Polity IV)* is a discrete ordinal score of a country's regime type on a democracy-autocracy scale, which we normalized between 0 and 1, and *Democracy (DD)* is the democracy dummy developed by Cheibub, Gandhi and Vreeland (2010) and updated by Bjørnskov and Rode (2020). The figure also displays 90% confidence intervals. The vertical lines indicate the sample median of per-capita income. Full regression results are reported in Online Appendix B2.

Figure 4. Marginal effect of democracy on aid volumes across income levels (2SLS, 1971–2013/2015)



Notes: The figure displays the marginal effects of democracy on a donor country's aid volume at different levels of per-capita income. Each subfigure uses one of two alternative measures of aid volume, as indicated in its header. The left column uses a donor country's logged annual total ODA disbursements over the 1971–2015 period as reported by the OECD (in millions of constant 2017 US dollar). The right column uses a donor country's logged annual total aid commitments over the 1971–2013 period as reported by AidData (in millions of constant 2011 US dollar). The figure also displays 90% confidence intervals. The vertical lines indicate sample median per capita income. Full regression results are reported in Online Appendix B6.