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Democracy

and

Aid Donorship

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Democracy and Aid Donorship

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Abstract: Almost half of the world's states provide bilateral development assistance. While previous research takes the set of donor countries as exogenous, this article is the first to explore the determinants of aid donorship. We hypothesize that democratic institutions reduce poor countries' likelihood to initiate aid giving. On the contrary, the leadership of poor authoritarian regimes face fewer constraints that would hinder these governments to reap the benefits of a development aid program despite popular opposition. To test our expectations, we build a new global dataset on aid donorship since 1945 and apply an instrumental-variables strategy that exploits exogenous variation in regional waves of democratization. Our results confirm that the likelihood of a democratic country to start aid giving is more responsive to income than it is the case for authoritarian countries. Overall, democracies are—if anything—less rather than more likely to engage in aid giving.

1. INTRODUCTION

The Kingdom of Morocco is a lower-middle-income country. It ranks only 123 of 188 in the 2016 Human Development Index (HDI) published by UNDP (2016). Still, the kingdom provides development cooperation 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 at the 92nd HDI position, has established its own outward aid institution, the *International Cooperation Fund of Mongolia* (ICF). The ICF is part of the Mongolian government's strategy to "strengthen the country's role and contributions internationally as a means of diplomatic soft power policy through sharing of its experiences of transition to democracy and democratic process, expanding bilateral cooperation with countries in the region and providing development and technical support for emerging democracies."[1] As funders of development cooperation, Morocco and Mongolia are by no means exceptions in the group of developing countries. In today's world, 88 countries are active as aid donors, of which 44 countries would be classified as low- or middle-income economies according to World Bank classifications.

Extensive literature documents that donor governments can benefit from their aid deliveries to other countries. For example, aid can promote geostrategic interests (e.g., Bearce and Tirone 2010; Fleck and Kilby 2010), help buy political support in international organizations (e.g., Kuziemko and Werker 2006; Vreeland and Dreher 2014; Dippel 2015; Kersting and Kilby 2016), boost exports (e.g., Martínez-Zarzoso et al. 2009, 2014; Hühne et al. 2014), improve the donor country's image (e.g., Dietrich et al. 2018; Eichenauer et al. 2018), and contribute to regime changes in recipient countries that could align with donor interests (e.g., Bermeo 2011; Kersting and Kilby 2014). However, governments of low- and middle-income countries face strong opportunity costs when spending resources on outgoing development aid rather than investing them in the development of their own countries. It thus appears as a puzzle why some governments decide to reap the benefits from aid donorship at early stages of development, while others do not.

This paper is the first to explore the determinants of countries' decision to become a donor of development aid. 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 (e.g., Kilby and Dreher 2010; Dreher et al. 2013a). In particular, we analyze the role of democratic institutions in this decision and how it is contingent on countries' level of development. According to the selectorate theory of foreign aid by Bueno de Mesquita and Smith (2007, 2009), countries with a larger "winning

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

coalition," such as democracies, are more likely to engage in development cooperation.[2] This result emerges as rational leaders of more democratic countries have to satisfy the preferences of a larger share of the population in order to remain in power. Thus, they would engage in a larger provision of public goods, including policy concessions bought from other countries through development aid. On the contrary, rational leaders of a small winning coalition, such as autocracies, would focus on private rather than public goods and use these to benefit their cronies. Coincidentally, the theory's implications are thus in line with the traditional notion of development aid as a phenomenon driven by Western-style liberal democracies (Lumsdaine 1993; Noël and Thérien 1995). For example, Lumsdaine and Schopf (2007) link the rise of South Korean aid to its democratization and the resulting development of a civil society. However, a first glance at the group of donor countries already raises doubts whether democracies are indeed more likely to become aid donors. China's aid activities, for example, 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, 2004; Werker et al. 2009).

The underlying and arguably disputable assumption of the selectorate theory of aid is that the policy concessions obtained through aid are a public good available to all residents of the donor country. In reality, aid-for-policy deals also come in the form of private goods or club goods. For example, recent research suggests that aid benefits narrow economic interests of donor-country companies (Dreher and Richert 2017; Malik and Stone 2018).

In this paper, we propose and test an alternative hypothesis on the link between democracy and aid donorship. We hypothesize that democratic institutions make it *less* likely that poor countries enter the aid business. It seems questionable whether domestic voters perceive aid giving by its government as a tool to pursue donor interests that ultimately benefit the donor population— particularly if there are opportunity costs from forborne investments into poverty alleviation at home. This explains why public support for development aid giving tends to be low among poor people. While governments are aware of the benefits that they can harvest from aid donorship, "voters tend to see foreign aid as a charity that is costly but without many tangible benefits" (Heinrich et al. 2016: 66). There are two puzzle pieces to derive our hypothesis. First, we argue that the income elasticity of demand for international development varies with the income level. Global development exhibits the characteristics of a luxury good (Dudley 1979), which is only supplied when more basic needs are fulfilled. Preferences for its provision 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

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[2] The winning coalition is the group of citizens whose support the leader needs to retain office. See Bueno de Mesquita et al. (2003) for the seminal work on the general selectorate theory of politics.

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; Heinrich et al. 2016).[3]

Second, the degree to which citizens' preferences translate into actual policymaking 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 poor 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 here relies on a small elite rather than a large winning coalition. The leaderships of these regimes face fewer constraints that would hinder governments to reap the benefits of a development aid program to themselves and their cronies. On the contrary, we expect less sharp differences between the likelihood to initiate aid giving between democratic and non-democratic rich countries as opposition to aid giving is arguably weaker with rising income. Since democracy is conducive to the development of a vivid civil society, one may even argue that rich democracies become more prone to aid giving than rich autocracies (Lumsdaine and Schopf 2007).

In the traditional understanding, development aid has often been associated with rich Western 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. Linking aid donorship and democracy, Faust (2008: 385) notes that "governments of rich democracies have long been assuring to commit themselves toward supporting economic development in poorer countries" and parades the Millennium Development Goals as a prime example. Going one step further, he argues that a country's commitment to development cooperation is a function of the quality of donor countries' democratic institutions. Maybe because development aid is commonly perceived as being associated with Western-style liberal democracies, there is no rigorous study on whether democracies are in fact more likely to give aid. Bueno de Mesquita and Smith (2009: 323) acknowledge that "[i]t is unfortunately difficult to test the predictions with respect to the donor's coalition size because, as predicted by the theory, virtually all the donor nations are coded as having the largest coalition size." While it is indeed difficult to observe aid giving by countries with a small winning coalition, the reason for it lies in limited data availability and not a lack of authoritarian donors that engage in aid giving.

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[3] Likewise, the provision of multilateral aid is highly disputed in developing and emerging economies. For example, Guterrez and Jaimovich (2016) note that many Chilean parliamentarians wanted to fight poverty within Chile when the country's senate debated additional contributions to the United Nations of US$ 5 million.

To enable us to explore the role that democratic institutions play for aid initiation, we construct a new global database on aid donorship. It covers the world's countries since the end of the Second World War or their respective year of independence.[4] The dataset features information on the year of their first aid delivery, the setup of institutions to manage outgoing aid flows, and the introduction of aid legislation. To construct this novel database, we designed a questionnaire that we sent to the various government institutions and embassies of each country in the world. We then used scholarly articles and internet research to verify and complement the collected information. The resulting dataset covers 114 countries, of which 88 have already provided development assistance, and 75 have institutionalized their aid giving. The proliferation of aid donors over time is astonishing: on average 13.5 new donor countries enter the donor landscape per decade. In contrast to common perceptions, this highlights that being a donor is not simply synonymous with being one of the industrialized countries with Western-style political institutions.[5]

Both the initiation of an aid program and measures of democracy are institutional variables that might be simultaneously affected by country-specific and time-varying omitted variables. We address these and other endogeneity concerns with a variant of the instrumental-variable approach introduced by Acemoglu et al. (forthcoming). It departs from the observation that democratization often emerges in the form of regional waves (e.g., Huntington 1991; Markoff 1996). More precisely, our instrumental variable 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 in the robustness section remaining concerns related to our identification strategy.

Our results from fixed-effects and two-stage least-squares regressions show that poorer countries are less likely to begin with the provision of development cooperation if they are under democratic rule. Both the first aid delivery and the setup of aid institutions are more likely to occur in democratic countries at the time of high per-capita income when opposition to aid giving is arguably lower. Since our findings show weak *negative* average effects of democracy on aid giving, our results contradict the selectorate theory of aid and the traditional perception of donors as being rich democracies. 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

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[4] *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 et al. (2017) highlight, "European and non-European powers [e.g., China, Rome] deployed foreign aid to restore, maintain or revise the geopolitical status quo throughout different periods of history prior to the 20th century."

[5] It would be interesting to re-run our analysis for aid budgets (either in levels of as a share of donor population or gross national income) to test whether donor-country democracy affects aid effort. However, such data are not available for a large set of countries. The OECD reports data on only 49 countries (http://stats.oecd.org/#; accessed on September 26, 2017). We did not attempt to collect new data on each donor's aid budget as already the data gathering of the simple aid initiation variables turned out to be very challenging for a global sample since 1945.

of explanatory variables, the exclusion of EU accession countries as potential outliers, and various lag structures of our instrumental variable.

Although this is the first empirical study on the emergence of new aid donors, we build on the vast literature on the determinants of aid budgets (e.g., Tingley 2010; Brech and Potrafke 2014) and aid allocations (e.g., Alesina and Dollar 2000; Kuziemko and Werker 2006; Hoeffler and Outram 2011). There is also a considerable amount of scholarly work on the effectiveness and side-effects of aid (e.g., Burnside and Dollar 2000; Bjørnskov 2010; Clemens et al. 2012; Nunn and Qian 2014).[6] Data availability dictates which of the world's countries can be included in empirical studies of aid. As a result, the overwhelming number of studies analyzes donor countries organized in the OECD's Development Assistance Committee (DAC), which is a club of rich and predominantly Western democracies.[7] Studies that extend the scope of their research to non-DAC countries cover only one or a small number of these donors (e.g., Dreher et al. 2011; Fuchs and Vadlamannati 2013; Gutierrez and Jaimovich 2016; Asmus et al. 2017; Semrau and Thiele 2017). As a result, these existing studies that aim to shed light on aid motives run the risk of sample selection biases. Rather than taking the sample of donor countries as exogenous, this article analyzes which countries become donors in the first place. While the previous empirical literature studied the *intensive* margin of aid, i.e., who gives how much, this is the first quantitative analysis of the *extensive* margin of aid, i.e., who decides to provide aid in the first place.

This article proceeds as follows. In Section 2, we present the new database on aid donors and provide a first descriptive overview on the proliferation of aid donorship across the globe. Section 3 explains the empirical approach, including the instrumental-variables strategy, and introduces the other datasets used in our study. In Section 4, we present our results and discuss the robustness of our findings. We close this paper with our conclusions in Section 5.

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[6] Survey studies that provide an overview on the aid literature include Doucouliagos and Paldam (2009, 2011), Milner and Tingley (2013), and Fuchs et al. (2014). Our article is particularly related to the strand of the aid literature that explains the determinants and effects of aid by so-called "new donors" (e.g., Doucouliagos and Manning 2009; Dreher et al. 2011, 2017; Strange et al. 2017; Isaksson and Kotsadam 2018). There is a large body of literature that links development aid with democratic institutions (Svensson 1999; Dunning 2004; Knack 2004, among many others). However, little research covers the implications of *donor* regime types for the effects of aid, with Bermeo (2011) being a notable exception.

[7] DAC members are the European Union and the following 29 countries: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, South Korea, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

2. THE NEW AID DONORS DATABASE

Until now, no comprehensive database existed indicating which countries engage as donors of development aid, let alone information on the year in which a country started its aid engagement. Existing aid databases, including those of the OECD-DAC and AidData, report commitments and disbursements of Official Development Assistance (ODA) and other official flows, but their coverage is low compared to the total number of aid donors active in global development. For those donors that are captured, these databases do not necessarily provide information on the entire history of their aid giving.[8] The coverage of both platforms is largely determined by the availability of data on financial values, which is why the absence of data for a particular country must not be misinterpreted as an absence of aid activities. What is even more critical in the context of our research question, the availability of aid data is biased towards rich and democratic countries.[9]

To fill this information gap, we build a comprehensive database on aid donorship since the end of the Second World War. Our data collection effort resulted in the *New Aid Donors Database*, which will be made publicly available. The database contains information on 114 countries from 1945-2015 on key milestones in their transition to becoming a donor of development aid. In particular, it covers 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 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 2011). Appendix A1 presents the original questionnaire in English. We translated it 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 if existent) of each country. If this inquiry remained 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.[10] 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,

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[8] For example, India provides aid since 1959 but the OECD reports Delhi's aid budget 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).

[9] According to the 2016 Aid Transparency Index (Publish What You Fund 2018), China and the United Arab Emirates, the only autocracies included in the index, rank at its bottom.

[10] This decision depended largely on the accessibility of contact details.

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.

Our definition of "aid donor" deserves some discussion, as there is no consensus on the term in academic and policy circles. In the context of our study, we define an aid donor as a country that provides development cooperation to at least one other country. 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 Official Development Assistance (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 (e.g., 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.[11] This definition is laid out in our questionnaire (see again Appendix A1).

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 at least once provided development assistance to another country. We thus obtain a binary variable that takes a value of one in the year of undertaking the very first activity of development cooperation, and zero in all years preceding this event.[12] Figure 1 plots world maps that graphically display countries that have already provided development cooperation by 1955, 1985, and 2015. The first countries to provide development assistance were Mexico in 1943, the Netherlands in 1949, and China 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 last countries entering 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 may argue instead that only countries that have institutionalized their aid giving should be defined as aid donors. This is

[11] The exclusion of military aid and anti-terrorism activities follows OECD definitions. We also decided to exclude humanitarian assistance as the motives to provide general development aid and humanitarian aid respectively should differ. Humanitarian assistance is the response to an immediate, short-term need. General development assistance aims more at long-term development targets. What is more, humanitarian assistance is often not dealt with within the same administrative bodies as general development assistance. On the new donor phenomenon in humanitarian assistance, see Fuchs and Klann (2013).

[12] All years after the event are coded as missing values. 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.

why our second definition is narrower than the first. More precisely, we code 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. For instance, Bulgaria (UN and Cooperation for Development Directorate), 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), Chile (Agencia de Cooperacion Internacional de Chile), and Kuwait (Kuwait Fund for Arab Economic Development) maintain independent aid agencies.[13] 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 body such that it falls under our definition). Of course, the absence of an administrative body that is responsible for the provision of development cooperation does not preclude a country from handing out individual aid projects, but rather, its establishment signals a more permanent commitment to development cooperation.

Figure 2 plots world maps that graphically display countries that have already institutionalized their aid giving by 1955, 1985, and 2015. 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 3 highlights that the group of countries to institutionalize aid has grown steadily over the last decades.

Our database reveals that 15 countries have initiated the provision of aid but not institutionalized their aid giving. Sri Lanka, for example, implemented its first aid project in 2011 by providing a grant for a road development project in the Maldives. Nevertheless, the government in Colombo has not set up an administrative body that is responsible for providing development cooperation to other countries. Both dependent variables, the variables capturing the first aid delivery and the setup of an aid institution, should be regarded as measures of the same phenomenon: the assumption of aid donorship. 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.[14]

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[13] Administrative bodies that adopted the responsibility for outgoing aid just on an ad-hoc basis but are primarily responsible for incoming aid (or other duties) do not fall under our definition of an aid institution. See, for example, the Directorate of International Cooperation in the Ministry of Foreign Affairs and Worship of Costa Rica, which handles outgoing aid in addition to the management of aid inflows (Rodríguez Steichen 2010).

[14] 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.

In our empirical analysis below, we assume that all countries for which we found no indication that they act as aid donor have not yet provided aid. 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). 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 reject 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 the aid business. 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. This is further discussed below.

3. EMPIRICAL APPROACH

We estimate the probability of becoming an aid donor in a given year. We are mainly interested in the role of a country's regime type for this decision. We start by testing whether there is an average positive effect of donor-country democracy on aid initiation, as predicted by the selectorate theory of aid. We then proceed with a test of our hypothesis introduced above. We expect that donor-country democracy has heterogeneous effects on the probability to become an aid donor depending on the level of economic development. Therefore, we do not only estimate the average effect of democracy on aid donorship, but also analyze the heterogeneous effect conditional on a country's income level. Since non-linear models are not well adapted to study interaction effects (Ai and Norton 2003; Greene 2010), we estimate a linear probability model.[15] Our model takes the following form:

$$Pr(donor_{i,t} = 1 | D_{i,t-1}, G_{i,t-1}, X_{i,t-1}) =$$

$$\beta_1 D_{i,t-1} + \beta_2 D_{i,t-1} \times G_{i,t-1} + \beta_3 G_{i,t-1} + X'_{i,t-1}\beta_4 + H(.) + \gamma_i + \delta_t$$

where $donor_{it}$ is a binary variable taking 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_{it-1} is a vector of control variables for country i in year t-1. The function H(.) controls for duration dependence by 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.[16] 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

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[15] In the robustness test section below, we demonstrate that we obtain the same qualitative results when we use a hazard model based on a logit estimator.
[16] We expect that countries have a low probability to start an aid initiative just after reaching independence, but will become increasingly more likely over time in a process of institution building.

that gained independence after 1951 enter the sample at their respective year of independence (data from Correlates of War Project 2011). Standard errors are clustered at the country level.

As our measure of democracy, we rely on Acemoglu et al. (forthcoming) and construct a consolidated dichotomous measure that combines several indices to overcome measurement error in any one of the variables. The measure codes a country i in year t 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 et al. 2016). Similar to Acemoglu and co-authors, we resolve cases where one of the indices is missing by drawing on the dichotomous democracy measure by Cheibub et al. (2010), which has been extended by Bjørnskov and Rode (2016). We also adopt the manual corrections reported by Acemoglu et al. that are based on historical sources of when democratization processes took place. We use the resulting measure in most of our analysis, but also demonstrate below that our results are robust to other measures of democracy. Appendix A2 provides a world map that shows the global pattern of democracy for our baseline measure.

As 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 on both variables are spuriously correlated due to a third (potentially unobserved) variable that drives the effect. For instance, it is possible that social unrest or the strengthening of counter-government forces make a democratization process more likely, while also raising the incentives to buy external support via development aid. What is more, most of the period of analysis takes place against the background of the Cold War, which was marked by a bipolar international system. With the intention to join the US-lead Western block, countries might have had an increased likelihood to democratize and, at the same time, started aid giving to please the United States. While many of these concerns can be mitigated through the inclusion of control variables, the risk of simultaneity bias stemming from unobserved variables that vary across countries and time remains. Reverse causality could be another source of endogeneity. Carnegie and Samii (forthcoming) use a regression discontinuity design to show for World Bank members that countries strategically improve their democracy and human rights record in order to obtain graduation from recipient to donor. While it is unclear whether an analogous effect exists for self-determined bilateral aid donors and not only for the exogenously determined group of lenders at the World Bank, we cannot rule out that reverse causality is a problem in our setting.

To address endogeneity concerns, we employ an instrumental-variables approach suggested by Acemoglu et al. (forthcoming). Their instrumental variable builds on the idea that democratization processes often result from regional waves of democratization. The mechanism of regional democratization waves is well documented in the political science literature (e.g., Huntington 1991; Markoff 1996). Acemoglu and co-authors list prominent examples of regional waves of democratization to illustrate their argument. 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. The weakening and dissolution of the Soviet Union initiated a wave of democratization not only in Eastern Europe but also in parts of Central Asia and Africa. More recently, the Arab Spring began 2010 in Tunisia and quickly spread over to other countries in the Middle East and North Africa. Although scholars still disagree about the causal mechanism behind such regional waves, the dominant argument suggests that the 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. We implement the idea of regional democracy waves, following Acemoglu and co-authors, by grouping countries according to the seven geographic regions of the World Bank Country Classification.[17] The instrumental variable $Z_{i,t}$ is then constructed as the lagged average level of democracy within a peer group of countries in the same world region that share a similar political history. Following Acemoglu and co-authors, we define the peer group for country i as all countries j within the same region whose regime type coincides with i's regime type at the beginning of the sample period. While the panel of Acemoglu and co-authors begins in 1960, our analysis reaches back to 1950. Consequently, the year relevant for the definition of the peer group differs from their study, which results in small deviations in the value of our instrument compared to the original study that introduced this instrument. Once the relevant peer group has been determined for each country, the instrument is generated by calculating the average value of our democracy measure $D_{j,t}$ within the peer group lagged by one time unit. Formally, this can be written as

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

where *n* signifies the number of countries *j* in the peer group of country *i*. 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. 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

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[17] The seven world regions are East Asia and Pacific, Europe and Central Asia, Latin America & the Caribbean, Middle East and North Africa, North America, South Asia, and Sub-Saharan Africa. See https://datahelpdesk.worldbank.org/knowledgebase/topics/19280-country-classification (last accessed June 18, 2018).

more civilian rights and the demand for development aid are driven by the same moral forces within the population—which would be in line with the argument in Lumsdaine (1993). Since development cooperation is a low-salience issue in domestic politics (e.g., 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 an aid initiative due to increased income. However, Acemoglu et al. (forthcoming) 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.

Since we assume that democracy has heterogeneous effects depending on the income level, our second variable of interest is income expressed as logged per-capita GDP (data from Feenstra et al. 2015). Although we are mainly interested in the interaction between democracy and income per capita, we also discuss results without the interaction term to test the prediction of the selectorate theory of aid, according to which democracy has a positive average effect on aid donorship.

We run specifications with and without the following control variables that are motivated by insights from the broader literature on development aid. We start with variables that reflect domestic factors of potential donor countries that might influence the decision to give aid. First, we control for government resources by including the government share of GDP from Feenstra et al. (2015). The selectorate theory predicts that leaders who control more government resources are more likely to give aid (Bueno de Mesquita and Smith 2009). Second, we control for the size of a country measured as logged total population size (data from Feenstra et al. 2015). While this variable can also be understood as another measure of resources, more populous countries should be more likely to become donors if global development is understood as an international public good. Under the assumption that a country's population has a preference for the development of other countries and that development aid is successful in promoting economic development,[18] aid efforts of one country generate positive externalities for other countries. Consequently, citizens of larger countries should be more willing to give aid, while smaller countries have higher incentives to free-ride on the aid efforts of their larger peers.[19] Third, to account for the role of domestic trade interests, we include a measure of trade

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[18] These preferences can result from the pure joy of altruistic behavior known in the behavioral economics literature as "warm glow" (Andreoni 1990) or from directly experienced positive externalities of foreign development, e.g., in the form of reduced migration or terrorism (e.g., Gassebner and Luechinger 2011; Bermeo and Leblang 2015). We acknowledge that this assumption is not straightforward as a country's relative position in the world weakens as other countries develop.

[19] As Dudley (1979: 569-570) notes in the context of aid, "the reciprocal of population may be interpreted as representing the 'price' of the public good to the median taxpayer."

openness defined as the sum of exports and imports as a percentage of GDP (data from Feenstra et al. 2015). Previous work has shown that donor countries provide more aid to their trading partners, supposedly to foster commercial ties (Berthélemy 2006; Hoeffler and Outram 2011; Dreher et al. 2011). Moreover, research suggests that development aid is indeed effective in expanding donor exports to the specific recipient countries (Martínez-Zarzoso et al. 2009; Nowak-Lehmann et al. 2009; Hühne et al. 2014). In anticipation of an expansion of export markets, we thus expect commercial actors within countries to lobby for the establishment of a bilateral aid program.[20]

The second set of control variables accounts for international factors that could influence a government's decision to assume aid donorship. First, we control for a country's political position vis-à-vis the United States as proxied by its voting behavior in the United Nations General Assembly (UNGA). 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 its position vis-à-vis a "US-led liberal order" (data from Bailey et al. 2017).[21] Since the United States started its own aid program, it "actively sought to foster foreign aid as an obligation of *all* developed states rather than its exclusive burden" (Gulrajani and Swiss 2017). We expect countries that are less distant to the United States to be more likely to be convinced (or coerced) to follow its model. Through the inclusion of this variable, we want to rule out that we observe a spurious association between democracy and aid donorship that stems from political alignment with the United States rather than a country's regime type. Second, we include a binary variable that marks every year during which a country was involved in an internal or internalized conflict over territory (data from Gleditsch et al 2002; Harborn and Wallensteen 2012). For example, Lafargue (2006) notes that Zambia, an Indian aid recipient, officially recognized the disputed Jammu and Kashmir regions as being a part of India rather than Pakistan. Similarly, 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." China is another case in point as it uses aid reductions to stifle foreign support for Tibetan separatism (Brazys and Vadlmannati 2018).

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. Appendix A3

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[20] Some donors openly state commerce as one of their official aid goals. The Chinese government, for example, highlights in its White Paper on Foreign Aid that "[t]hrough foreign aid, China has consolidated friendly relations and economic and trade cooperation with other developing countries […]" (State Council 2011). Highlighting the mutual benefit that accrues to donors and recipients, the German Ministry of Economic Cooperation and Development states among its principles that "[d]evelopment cooperation […] also gives a boost to donor countries' economies." See http://www.bmz.de/en/what_we_do/principles/principles-of-development-policy/index.html (accessed November 27, 2016).

[21] UNGA voting data is frequently used to measure political relations between countries (e.g., Alesina and Dollar 2000; Dreher et al. 2008; Dippel 2015). We prefer ideal point distances over simple affinity scores as the former use UNGA resolutions that were identical over time to "bridge observations," thus separating shifts in political alignment from mere changes in the UN agenda (e.g., Davis et al. forthcoming). This enables us to eliminate noise and facilitates better comparisons of states' relative foreign policy orientations across countries and time.

displays the correlation between our variables. Appendix A4 provides details on the definitions and sources of all variables employed in the analysis.

4. RESULTS

(a) Main results

Table 2 presents our main results. As a benchmark, in columns 1-3 we show the additive effects of democracy and per-capita income on aid donorship without interaction. We start with a simple linear probability model that excludes country- and year-fixed effects in column 1, introduce both sets of fixed effects in column 2, and apply the instrumental-variables strategy using two-stage least-squares (2SLS) regressions in column 3.[22] The instrument is powerful as suggested by the first-stage F statistic that is above the rule-of-thumb value of ten. The results show the expected 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 all three specifications. Quantitatively, a country that is twice as rich, such as Germany compared to Guatemala in 1950, has a probability of entering the aid business that is 1 percentage point higher (column 2).[23] Given that the average probability of initiating aid giving is 1.1 percent, this effect is sizable. The 2SLS coefficients are considerably larger than the non-instrumented fixed-effects estimates. This could be a downward attenuation bias caused by measurement error in the democracy variable (Acemoglu et al. forthcoming) or be driven by third variables that cause an omitted-variable bias in this direction.

At the same time, we find no evidence that democracies are more likely to initiate aid giving. The corresponding coefficient on democracy is insignificant in column 1 and even becomes significantly negative in column 2, suggesting that countries are less likely to initiate aid giving when they are under democratic rule. The insignificant coefficient on democracy in column 3 suggests that there is no causal effect of democratic institutions on the likelihood of becoming an aid donor. Taken together, these results are striking as they stand in sharp contrast to the selectorate theory of aid, which expects democracy to be conducive to aid donorship.

To test our hypothesis that democratic institutions make it unlikely that poor countries become aid donors, we replicate the models from columns 1-3 but condition the effect of democracy on a country's income level. As the results presented in columns 4-6 show, the coefficient on the interaction between democracy and per-capita GDP is always positive and statistically significant at least at the five-percent level, which is in line with our expectations.

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[22] We report the corresponding first-stage regression results in Appendix B1.

[23] 0.0148*ln(2).

These results so far stem from models without control variables to rule out that our findings are driven by what Angrist and Pischke (2008) call "bad controls." For example, the political proximity to the United States could just be a channel linking democracy and aid initiation. However, we also show results with the set of controls to mitigate concerns about omitted-variable bias. As columns 7-9 highlight, it is reassuring that our main findings are largely unaffected when we include the set of control variables described above. As our results appear to not hinge on the inclusion or exclusion of the control variables, we will use the regressions in columns 8-9 as our baseline specifications for our robustness tests below.

The upper left panel of Figure 4 visualizes the heterogeneous effects based on the results in column 8. As can be seen, democracies with a logged per-capita GDP above 11 such as Norway in 1995, have a significantly larger probability to initiate aid giving than authoritarian countries at the same income level, such as Kuwait or Qatar. Conversely, democracies with a logged per-capita GDP below 8.7, such as Namibia, Fiji, or Belize in 1995, are significantly less likely to become aid donors than their authoritarian counterparts such as Indonesia or Morocco. This supports our hypothesis that democratic institutions prevent poor countries from entering the aid business.

Turning to the interpretation of the control variables in Table 2, we find that countries that are politically distant to the United States are less likely to initiate aid giving. The corresponding coefficient is negative as expected and significant at the one-percent level in column 7. 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 0.8 percentage points. The within estimates are of similar size and statistically significant at the five-percent level (columns 8 and 9). As expected, larger countries are more likely to become donors of development assistance (column 7). This could reflect citizens' increased support of aid as an international public good. Quantitatively, a country that is twice as large, such as Australia compared to Denmark in 1950, has a probability of entering the aid business that is 0.53 points higher. It is not surprising that population does not have a statistically significant effect on aid donorship once we control for fixed effects since the variable does not change much over time (columns 8 and 9). There is some evidence that countries that are more open to trade are more likely to enter the aid business, potentially to benefit from the commercial returns to aid. The corresponding coefficient on the trade-to-GDP ratio is positive and statistically significant at the ten-percent level in the 2SLS specification in column 9. In contrast, the government share of GDP fails to reach statistical significance at conventional levels, which underscores the weak predictions of the selectorate theory of aid. Finally, countries that face an intrastate conflict over territory also do not appear to be more likely to initiate aid giving.

Summing up our results so far, the evidence supports our predictions. While the average effect across income levels of democracy on the decision to give aid is close to zero, we find significant increasingly positive effects of democracy when income grows. This finding is robust across our

different specifications. In particular, the results from the 2SLS regressions are significant at the one-percent level, which suggest that the effect is causal. However, whether we have indeed identified a causal effect depends on the exclusion restriction. As discussed above, there is little reason to expect that the exclusion restriction is violated. Nevertheless, we test the robustness of our results against the potential violations mentioned earlier: regional waves of aid donorship and regional economic trends.

(b) Potential violations of the exclusion restriction

First, we raised the possibility that regional waves of aid donorship spread across the same channels as democracy and might be driven by the same domestic forces. In columns 1-4 of Table 3, we test the effect of regional waves of aid donorship. Following our main specifications, we include all control variables of Table 2 and present for each test both fixed-effects and two-stage least-squares results. 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. Similar to the instrument for democracy, the donor spatial lag consists of a weighted average of the variable $donor_{it}$ among all countries j, where $j \neq i$ and weights are based on their inverse geographical distance to country i. To be able to compute this average, we set D_{it} equal to 1 also in years after country j has become a donor of development aid. The resulting spatial lag ranges from 0 to 1. A significantly positive coefficient on the spatial lag could either hint at competition, learning, or emulation as drivers of policy diffusion as causes of spatial dependence. 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." In column 3 and 4, we apply an alternative weighting mechanism. If aid donorship and democracy both move in regional waves that move along the same cultural and historical ties, geographic proximity could not fully capture the effect. Therefore, we also test 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. In contrast, the significance of the interaction between democracy and income even increases in the fixed-effects specification when we include the donor spatial lag that relies on geographic distance weights. Interestingly, the spatial lag measure that relies on geographic distance weights is highly significant, while the corresponding variable weighted by democracy peer groups shows no significant effect in the 2SLS regression. These findings make us confident that our main results are not driven by a spurious correlation caused by regional waves of aid donorship.

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Second, we also raised the unlikely possibility that regional economic booms both cause regional waves of democratization and increase the likelihood of any single country to begin an aid initiative due to increased income. 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 the democracy peer group (column 7 and 8). Our main findings also prove robust to this test. The spatial lag of GDP with each weighting alternative does not reach strong significant results. It seems therefore unlikely that regional economic trends bias our analysis.

(c) Measures of democracy

It is possible that the selection of our democracy measure drives our finding of a heterogeneous effect of democracy. We therefore test the robustness of our results by replacing our baseline measure based on Acemoglu et al. (forthcoming) with a set of alternative measures of political institutions as reported in Table 4. Again, all regressions include the same control variables as in Table 2 but we do not report their coefficients to reduce clutter. For the reader's convenience, the first column of Table 4 displays the baseline results from Table 2.

In column 2, we use the Polity 2 score of the Polity IV project (Marshall et al. 2016). Democracy is measured on a 21-point scale ranging from -10 (hereditary monarchy) to +10 (consolidated democracy). To enable comparisons with our other democracy measures, we normalize the variable to take values between zero and one. Column 3 uses the binary Democracy-Dictatorship (DD) index developed by Cheibub et al. (2010) and updated by Bjørnskov and Rode (2016). They split countries into democracies and dictatorships, where 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.

Next, we include the size of countries' winning coalition *W* in column 4. We calculate this five-point measure following Bueno de Mesquita et al. (2003) and Bueno de Mesquita and Smith (2009). To be precise, it is computed as follows:

$$W_{i,t} = \frac{regtype_{i,t} + xropen_{i,t} + xrcomp_{i,t} + parcomp_{i,t}}{4}$$

where $regtype_{i,t}$ is a binary variable that takes a value of one if the regime type is not a military or military/civilian regime based on the CNTS Data Archive (Banks and Wilson 2016). $xropen_{i,t}$, $xrcomp_{i,t}$, and $parcomp_{i,t}$ are binary variables for openness of executive recruitment, competitiveness of executive recruitment, and competitiveness of participation. They take a value of

one if their respective indicator in the Policy data takes on values of two or larger (Marshall et al. 2016). *W* is normalized to range between zero and one. Column 5 uses a measure for *W* put forward by Bormann et al. (2017), who compute the winning coalition size based on information on the power status and population share of ethnic groups. The measure uses data from the Ethnic Power Relations Dataset (Cederman et al. 2010; Vogt et al. 2015) to compute the population share of ethnic groups that is included in a country's executive. This measure comes with the advantage that it is continuous but relies on the strong assumption that ethnic discrimination is the only form of political exclusion.

Finally, column 6 uses an index of electoral democracy from the V-Dem project (Coppedge et al. 2016). Since it measures the degree to which electoral competition makes rulers responsive to citizens, it offers a good alternative measure to Bueno de Mesquita and co-authors' winning coalition size. It does not only offer an independent assessment of democracy as it is based on original expert coding, while indicators by both Acemoglu et al. (forthcoming) and Bueno de Mesquita et al. (2003) partly draw on the same primary democracy indicators, it also measures a dimension of democracy that is close to our suggested mechanism via responsiveness to voters.

The results in panel A of Table 4 without the interaction term confirm the absence of positive average effects of democracy on aid donorship. None of the measures for political institutions shows a statistically significant positive coefficient. If anything, there is weak evidence that countries that become less democratic are more likely to initiate aid giving, as suggested by the significantly negative coefficients on our baseline indicator and the polity variable. Taken together, our results do not support the conclusions derived from the selectorate theory. Turning to the heterogeneous effects across levels of development in panel B, we find in all but one specification a positive and statistically significant coefficient on the interaction term of democracy and income. Only the indicator based on ethnic political inclusion falls slightly short of reaching the ten-percent level of statistical significance (p-value: 0.114). However, the weaker results are not necessarily surprising as this variable proxies openness and competitiveness of executive recruitment with *ethnic* diversity of the executive, which might not be a relevant measure for a large part of our sample. We conclude that, independently from the chosen measure of democracy, poorer countries are less likely to begin with the provision of development cooperation if they are under democratic rule. The negative effect of democracy decreases with rising income. Figure 4 graphically displays the marginal effect of democracy on aid institution conditional on income. Democratic institutions make it significantly less likely that a country starts an aid initiative if it falls short of a per-capita income level that ranges between US\$ 1,998 (winning coalition) and US\$ 3,294 (baseline indicator), depending on the democracy measure used. Once a country reaches a threshold between US\$ 6,003 (electoral democracy or winning coalition) and US\$ 36,316 (DD), aid donorship becomes significantly more likely if a country has democratic institutions.

We test the robustness of our main results with respect to the treatment of missing values, temporal aggregation, the definition of our dependent variable (Table 5), several extensions of the set of explanatory variables employed (Appendix B2), the treatment of EU accession countries as potential outliers (Appendix B3), the usage of a discrete time hazard model (Appendix B4), and the lag structure of our instrumental variable (Appendix B5).

The robustness tests in Table 5 report regressions for both LPM and 2SLS with country- and year-fixed effects. For the reader's convenience, we provide the respective baseline results from Table 2 in columns 1 and 2 of Table 5. In columns 3 and 4, we propose an alternative treatment of missing information on our dependent variable. Specifically, we no longer assume that all countries missing in our dataset on aid donorship have not yet provided aid. Although we do not have much reason to believe that our initial assumption is implausible, we want to test the robustness of this decision. Treating missing information as missing values rather than zeros, the number of observations decreases from 5,332 (5,225) to 3,283 (3,247) observations. Next, in columns 5 and 6, we run regressions with our data averaged over three-year periods rather than using annual observations. One may argue that the decision to become an aid donor develops over a longer period and the establishment of an aid institution could take longer than a year. Using three-year averages reduces the number of observations to 1,666 (1,547) observations. Finally, we test the robustness of our decision to use the narrow definition of aid donorship based on the year of the first setup of an institution that manages aid giving. To do so, columns 7 and 8 show regression results for the broad definition of aid donorship based on the year of the first aid delivery.

These robustness tests generally confirm our earlier findings. The interaction between democracy and income remains positive and statistically significant at conventional levels in all but one specification. The coefficient on the interaction remains positive but does not reach statistical significance when we apply the wide definition of our dependent variable (column 7). However, it is reassuring that we again observe the hypothesized effect even with the wide definition of aid donorship when we control for endogeneity (column 8).

We also test the robustness of our main results to several extensions of the set of explanatory variables employed (Appendix B2). First, 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. As Wright (2009: 569) notes, "[d]uring the Cold War period, both Western and communist donors often gave aid precisely to counter the aid given by the other superpower bloc." After the fall of the Berlin Wall, Russia became an important power in the "counterhegemonic bloc" (Voeten 2000). If foreign aid is successful as a tool to "cultivate a natural ideological ally over the long run" (Beim 1964: 787), it will benefit to a larger extent countries close to major ideological camps. The allies of both

superpowers should share the superpowers' interest in status-quo maintaining or status-quo changing aid and are thus more included to contribute to the international club good development aid.[24] On the contrary, countries with a large ideological distance to these camps have no strong incentives to contribute to the international club good, and thus, should be less likely to incur the costs to establish an aid program.

Second, we account for different dynamics during the Cold War as its end is said to have reduced the strategic motives for giving aid (e.g., Meernik et al. 1998). If development aid is motivated by geopolitical motives, it is likely that this period of particular geopolitical tensions had an impact on countries' decisions to engage in development aid. In line with this idea, Tingley (2010) and Dreher and Fuchs (2011) find that the aid effort of OECD countries was higher during the Cold War. We include a binary variable that takes a value of one in years prior to 1991.

Third, we control for years during which a country is involved in a militarized conflict (data from Gleditsch et al. 2002; Melander et al. 2016). Governments may use aid to buy international support during wars and other militarized conflicts (e.g., Lundborg 1998). Fourth, we control for the colonial history of a country. From the aid allocation and aid budget literature, it is well known that donors give more aid to former colonies (Alesina and Dollar 2000; Fuchs et al. 2014). The underlying idea is that countries have stronger incentives to establish a development aid initiative as a substitute for their colonies when they reach independence. Alternatively, one might expect that former colonial powers might have a lower probability of engaging in development aid as they already maintain close ties with developing countries due to their common history. In this regard, Bertoli et al. (2008) suggest that aid is used to substitute ties established during colonial times. We thus include a variable for the total population living in former colonies of a country (data from Mayer and Zignago 2011 and Feenstra et al. 2015). All of these variables, however, do not appear to matter for aid initiation (see Appendix B2). Our main findings are qualitatively unchanged.

Next, 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' the ECE [Eastern and Central European] countries to restart their international development policies during the accession negotiations."[25] While Bulgaria, Hungary, Poland, and Romania already started aid giving during the Cold War and Croatia (1993) and Czechia (1993) became donors directly after their independence, Estonia (1998), Latvia (1999),

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[24] Markovitz et al. (2017) argue that countries' interests vis-à-vis the international political status quo incentivize aid giving. In their view, countries employ aid to restore, maintain, or change the status quo in international politics.

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

Slovakia (1999), Lithuania (2001), Slovenia (2003), Cyprus (2005) and Malta (2008) started aid giving in temporal proximity to their EU accession. When we exclude these countries and those with ongoing accession negotiations (Albania, Bosnia-Herzegovina, Iceland, Macedonia, Montenegro, Serbia, and Turkey), from our analysis, we come to the same qualitative conclusions (see Appendix B3). This further increases our confidence in the findings.

Although non-linear models are not well adapted to study interaction effects (Ai and Norton 2003; Greene 2010), we show results from a discrete time hazard model using a logit link function (Beck et al. 1998) as a test of robustness.[26] We replicate column 4 rather than a fixed-effects specification of Table 2 since a conditional (fixed-effects) logit model does not converge in our setting. The results from the discrete time hazard model support our main finding (Appendix B4). Democratic institutions make it less likely that poor countries initiate aid giving, while we observe a significant positive effect of democracy on aid donorship at high income levels.

Finally, we test alternative lag structures of our instrumental variable. Our main specification includes a one-year lag of the democracy instrument, which corresponds to the baseline in Acemoglu et al. (forthcoming). We follow Acemoglu and co-authors and estimate variants of our model by including up to four lags in our estimation. This comes with the advantage that the instrument becomes more robust to measurement errors. However, this strategy has the downside that the increased number of instruments reduces the test power and increases the risk of overidentification. It is reassuring that our second-stage results do not change much when adding lags of the democracy instrument to the first-stage equation (see Appendix B5). Since our second stage contains two endogenous regressors—democracy and the interaction of democracy with income—our first-stage Kleibergen-Paap F-statistic with only one lag is lower than the baseline results in Acemoglu et al. (forthcoming), but it reaches a sufficiently high value of 11.64 (column 1). When adding two to four lags of the democracy instrument to our first stage (columns 2-4), the test power rapidly decreases but the coefficients are still in line with our hypothesis.

5. CONCLUSIONS

It is puzzling that developing countries such as Angola and Nigeria run their own development aid programs, while other countries at similar stages of development do not. This puzzle also extends to more advanced emerging economies and some of today's industrialized countries. While it is not surprising that the People's Republic of China and South Korea are active aid donors today, it is

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[26] The discrete time equivalent of a Cox proportional hazard model consists in a cloglog link. However, Beck et al. (1998) show the logit link performs very similarly to the cloglog for probabilities less than 50 percent. It can therefore be used as a computationally convenient alternative to the cloglog link function.

puzzling why these countries started their aid deliveries in the early 1950s and 1960s, respectively, when they needed resources to build up their own economies. In this article, we have shed a new perspective on aid giving. Rather than taking the set of donors of development aid as exogenously given, we have analyzed the determinants of countries' decision to become an aid donor in the first place.

Popular perceptions and earlier theories of aid giving connect aid donors to Western-style democracies. Likewise, the selectorate theory of aid offers a formal model suggesting that the likelihood of becoming a donor increases with the size of the winning coalition. In other words, democracies are more prone to enter the aid business. We introduced an alternative hypothesis that suggests that the effect of democratic institutions on the likelihood to give development aid depends on income. We hypothesized that democratic institutions reduce poor countries' likelihood to initiate aid giving. On the contrary, the leadership of poor authoritarian regimes face fewer constraints that would hinder these governments to reap the benefits of a development aid program despite popular opposition. Our hypothesis thus builds on the selectorate theory of aid in the sense that the decision to give aid is a function of a country's institutional features that dictate the government whose preferences need to be met to remain in power. However, we rejected the assumption of the selectorate theory that policy concessions obtained by donor governments are public goods. In reality, aid-for-policy deals also come in the form of private goods or club goods. This crucial distinction leads to very different predictions about the effect of democratic institutions on aid donorship.

The role of democratic institutions in the decision to start an aid initiative has never been empirically tested. The reason is that global data on aid donorship were unavailable. In order to overcome the lack of comprehensive data on aid donorship, we constructed a new global dataset on the year in which countries started to provide aid and in which they institutionalized their aid giving. To address endogeneity concerns, we followed Acemoglu et al. (forthcoming) and built an instrumental variable based on the idea that democratization spreads in waves. Our results show that democracies are not more likely to become an aid donors. On the contrary, we find that democratic institutions have indeed heterogeneous effects on aid donorship depending on the income level. Democratic institutions support the setup of an aid program in rich countries but undermine its establishment in poor 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. This 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, the exclusion of EU accession countries as potential outliers, and various lag structures of our instrumental variable.

That said, our results are far from exhaustive and should act as a starting point for further research. First, we focused on one tool in a government's toolbox, development aid, while the

(un)availability of other tools like military force might affect the decision to initiate aid as well. If it is easier for a government to secure domestic support for aid than immigration or the use of military force, as research by Milner and Tingley (2015) for the United States suggests, the high costs of these alternative tools may boost aid initiation. Second, future work could also exploit the aid legislation variable that is part of our new database to understand why some countries are more concerned about the legal foundations of their development work than others. Third, as the number of countries that report bilateral aid allocations increases, it will be interesting to explore the determinants of the intensive margin of aid with a global sample of donors once data availability allows such investigations. Fourth, while the focus of our work is on bilateral aid, future research could also study the role of democratic institutions in the emergence of multilateral donors (Pratt 2017) and the creation of trust funds (Eichenauer and Reinsberg 2017; Reinsberg et al. 2017).

A good understanding of the key factors driving countries to engage in development cooperation is important given the recent proliferation of donors outside the OECD-DAC (Kragelund 2008; Gulrajani and Swiss 2017). Initially, one might be tempted to welcome the emergence of new donors, but the fragmentation of their activities in recipient countries is perceived as a bureaucratic burden and an obstacle to economic growth (e.g., Knack and Rahman 2007; Djankov et al. 2009; but see also Gehring et al. 2017). Despite efforts to improve the coordination among donors, this problem is likely to persist or even worsen as new actors engage in development cooperation (Dreher et al. 2013b; Nunnenkamp et al. 2013). Moreover, our study should enable us to grasp the consequences of a changing donor landscape on development outcomes. Our tested hypothesis rests on the assumption that democratic institutions affect a government's decision to start an aid initiative by making it necessary that voters concur with this decision. In the same way, democratic institutions might affect the quality of aid that is being provided. Previous research suggests that the source of funding—originating from a more or less democratic donor—matters for the effects of aid. Aid from democratic donors promotes democratization in recipient countries, while aid from authoritarian donors does not (Bermeo 2011). More democratic donors show a larger development orientation in their aid policies (Faust 2008). There is also evidence that aid from the authoritarian donor countries China, Kuwait and the United Arab Emirates weakens the stringency of World Bank conditions (Hernandez 2017). These previous findings suggest that the motives and effects of aid from authoritarian donors differ from their democratic counterparts. At the same time, our results show that autocracies are—if anything—more rather than less likely to give aid. In times in which autocracies grow and countries experience autocratic reversals (or at least more vivid populist movements), our findings thus carry an important message.

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Table 1: Descriptive statistics

Variable name	Observations	Mean	Std. Dev.	Min	Max
Dependent variables					
First aid delivery	4,633	0.0110	0.104	0	1
First aid institution	5,225	0.0113	0.106	0	1
Explanatory variables (in alphabetic order)					
Cold War	5,225	0.567	0.496	0	1
(log) Colony population	5,225	0.771	3.478	0	20.27
Democracy (baseline)	5,225	0.444	0.497	0	1
Democracy (DD)	5,172	0.399	0.490	0	1
Democracy (ethnic winning coalition)	4,827	0.401	0.254	0.0158	0.933
Democracy (electoral democracy)	4,678	0.803	0.257	0.0200	1
Democracy (instrument)	5,225	0.424	0.370	0	1
Democracy (Polity IV)	4,961	0.501	0.355	0	1
Democracy (winning coalition)	4,895	0.543	0.297	0	1
Duration	5,225	28.88	16.77	3	71
(log) GDP per capita	5,225	8.314	1.114	5.085	12.33
Government share of GDP	5,225	0.149	0.0727	0.0144	0.944
Intrastate conflict over territory	5,225	0.0415	0.200	0	1
Militarized interstate dispute	5,225	0.127	0.333	0	1
Openness	5,225	0.696	0.435	0.0359	4.110
Political distance to Russia	5,225	1.694	1.161	0.00100	5.215
Political distance to US	5,225	2.514	1.037	0	4.986
(log) Population	5,225	15.42	1.456	11.72	19.98
Donor spatial lag (by geographic distance)	5,225	0.141	0.0907	0	0.545
Donor spatial lag (by democracy peer group)	5,077	0.328	0.325	0	1
GDP spatial lag (by geographic distance)	5,225	8.791	0.642	6.407	10.14
GDP spatial lag (by democracy peer group)	5,157	8.676	0.834	6.182	10.97

Note: The descriptive statistics are based on the estimation sample of Table 2, column 9.

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

	(1) LPM	(2) LPM FE	(3) 2SLS FE	(4) LPM	(5) LPM FE	(6) 2SLS FE	(7) LPM	(8) LPM FE	(9) 2SLS FE
Democracy	-0.0024	-0.0068**	-0.0005	-0.1147***	-0.0810**	-0.4123***	-0.1209***	-0.0763**	-0.4599***
	(0.4419)	(0.0317)	(0.9864)	(0.0001)	(0.0116)	(0.0000)	(0.0000)	(0.0308)	(0.0003)
(log) GDP per capita	0.0192***	0.0148***	0.0155***	0.0131***	0.0104**	-0.0090	0.0120***	0.0060	-0.0143
	(0.0000)	(0.0030)	(0.0023)	(0.0002)	(0.0346)	(0.2588)	(0.0003)	(0.2416)	(0.1061)
Democracy # (log) GDP per capita				0.0139***	0.0093**	0.0525***	0.0146***	0.0087*	0.0583***
				(0.0002)	(0.0236)	(0.0002)	(0.0001)	(0.0545)	(0.0011)
Government share of GDP							0.0101	-0.0172	-0.0086
							(0.6296)	(0.3554)	(0.6976)
Political distance to US							-0.0075***	-0.0109**	-0.0115**
							(0.0018)	(0.0149)	(0.0251)
(log) Population							0.0077***	-0.0281	0.0018
							(0.0002)	(0.1825)	(0.9384)
Openness							0.0068	0.0065	0.0121*
							(0.1679)	(0.3084)	(0.0895)
Intrastate conflict over territory							0.0217	0.0146	0.0211
							(0.1402)	(0.3138)	(0.1821)
Country FE and year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,503	5,503	5,379	5,503	5,503	5,379	5,332	5,332	5,225
Number of countries	147	147	145	147	147	145	142	142	141
R squared	0.0161	0.0381		0.0176	0.0389		0.0187	0.0270	
Kleibergen-Paap F-stat			22.53			10.18			11.64

Notes: The dependent variable is a binary variable that takes a value of one in the year a country establishes its first aid institution. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Table 3: Democracy, income, and aid donorship (1951-2015, robustness tests)

	(1) LPM FE	(2) 2SLS FE	(3) LPM FE	(4) 2SLS FE	(5) LPM FE	(6) 2SLS FE	(7) LPM FE	(8) 2SLS FE
Democracy	-0.0797**	-0.4756***	-0.0779**	-0.3738***	-0.0742**	-0.4512***	-0.0717*	-0.4612***
	(0.0225)	(0.0001)	(0.0340)	(0.0011)	(0.0381)	(0.0004)	(0.0518)	(0.0004)
(log) GDP per capita	0.0046	-0.0170*	0.0070	-0.0073	0.0070	-0.0139	0.0021	-0.0185**
	(0.3879)	(0.0581)	(0.1983)	(0.2775)	(0.2011)	(0.1230)	(0.6857)	(0.0484)
Democracy	0.0091**	0.0608***	0.0091*	0.0479***	0.0084*	0.0574***	0.0081*	0.0592***
# (log) GDP per capita	(0.0417)	(0.0004)	(0.0525)	(0.0020)	(0.0648)	(0.0013)	(0.0841)	(0.0011)
Donor spatial lag	0.3712***	0.3685***						
(by geographic distance)	(0.0008)	(0.0004)						
Donor spatial lag			0.0246*	0.0194				
(by democracy peer group)			(0.0556)	(0.1423)				
GDP spatial lag					-0.0178	-0.0110		
(by geographic distance)					(0.3667)	(0.5973)		
GDP spatial lag							0.0169*	0.0123
(by democracy peer group)							(0.0754)	(0.1685)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE and year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,170	5,225	5,025	5,077	5,170	5,225	5,106	5,157
Number of countries	141	141	135	135	141	141	139	139
R squared	0.0473		0.0432		0.0418		0.0428	
Kleibergen-Paap F-stat		11.73		10.05		11.71		12.83

Notes: The dependent variable is a binary variable that takes a value of one in the year a country establishes its first aid institution. All regressions include all control variables as in column 7-9 of Table 2. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Table 4: Democracy, income, and aid donorship (1951-2015, democracy measures)

	(1) Baseline	(2) Polity IV	(3) DD	(4) Winning coalition	(5) Ethnic winning coalition	(6) Electoral Democracy
	LPM FE	LPM FE	LPM FE	LPM FE	LPM FE	LPM FE
Panel A. Average effect of democracy						
Indicator	-0.0073**	-0.0130*	-0.0043	0.0002	0.0069	0.0102
	(0.0223)	(0.0857)	(0.2213)	(0.9723)	(0.3906)	(0.3587)
(log) GDP per capita	0.0092*	0.0088*	0.0111**	0.0106**	0.0135**	0.0118**
	(0.0560)	(0.0862)	(0.0250)	(0.0417)	(0.0160)	(0.0241)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Country and year FE	Yes	Yes	Yes	Yes	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,264	4,994	5,212	4,928	4,708	4,858
Number of countries	142	136	141	136	129	133
R squared	0.0402	0.0399	0.0406	0.0578	0.0409	0.0411
Panel B. Heterogeneous effect of democracy						
Indicator	-0.0786**	-0.1667***	-0.0981**	-0.1808***	-0.1582	-0.2902***
	(0.0285)	(0.0081)	(0.0264)	(0.0020)	(0.1094)	(0.0024)
(log) GDP per capita	0.0052	0.0081	0.0058	-0.0003	-0.0046	-0.0023
	(0.3018)	(0.1059)	(0.2736)	(0.9606)	(0.6933)	(0.6912)
Indicator	0.0090*	0.0010**	0.0116**	0.0226***	0.0224	0.0358***
# (log) GDP per capita	(0.0506)	(0.0165)	(0.0352)	(0.0029)	(0.1143)	(0.0021)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Country and year FE	Yes	Yes	Yes	Yes	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,264	4,994	5,212	4,928	4,708	4,858
Number of countries	142	136	141	136	129	133
R squared	0.0409	0.0414	0.0415	0.0597	0.0418	0.0439

Notes: The dependent variable is a binary variable that takes a value of one in the year a country establishes its first aid institution. All regressions include all control variables as in column 7-9 of Table 2. Results of control variables are not displayed. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Table 5: Democracy, income, and aid donorship (1951-2015, alternative model specifications)

|	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Baseline		Limited dataset		3-year averages		Wide definition	
	LPM FE	2SLS FE	LPM FE	2SLS FE	LPM FE	2SLS FE	LPM FE	2SLS FE
Democracy	-0.0763**	-0.4599***	-0.1305*	-0.7473***	-0.2788**	-0.9172**	-0.0423	-0.3113***
	(0.0308)	(0.0003)	(0.0575)	(0.0010)	(0.0162)	(0.0175)	(0.2041)	(0.0027)
(log) GDP per capita	0.0060	-0.0143	0.0165	-0.0178	0.0142	-0.0157	0.0092	-0.0046
	(0.2416)	(0.1061)	(0.1806)	(0.3218)	(0.3451)	(0.5524)	(0.1345)	(0.5642)
Democracy # (log) GDP per capita	0.0087*	0.0583***	0.0147*	0.0942***	0.0323**	0.1089**	0.0041	0.0411***
	(0.0545)	(0.0011)	(0.0823)	(0.0020)	(0.0300)	(0.0456)	(0.3426)	(0.0039)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE and year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,332	5,225	3,283	3,247	1,666	1,547	4,796	4,748
Number of countries	142	141	96	96	141	137	132	127
R squared	0.047		0.065		0.102		0.045	
Kleibergen-Paap F-stat		11.64		9.987		8.095		13.06

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. 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. All regressions include all control variables as in column 7-9 of Table 2. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Figure 1: World maps of aid donors (broad definition, 1955, 1985, and 2015)
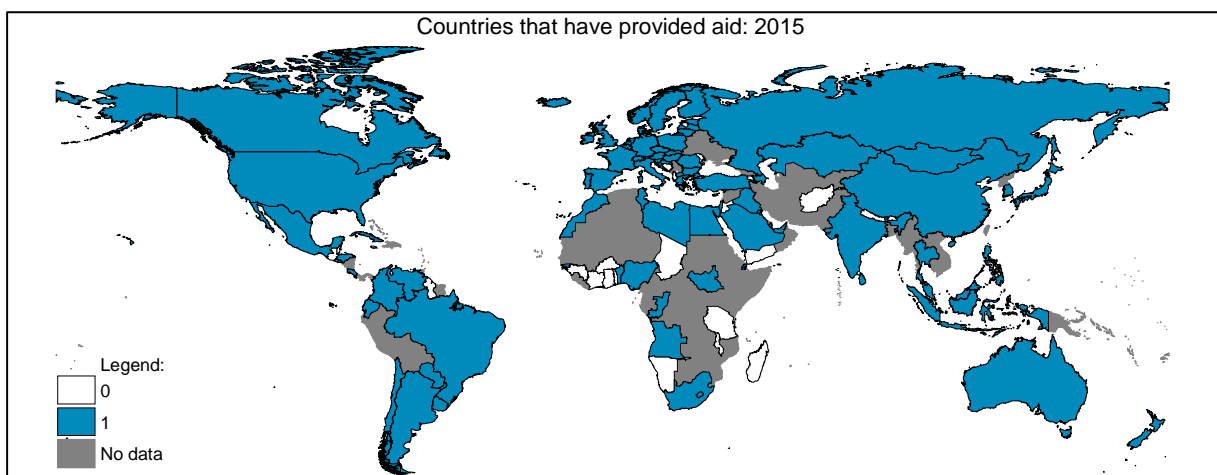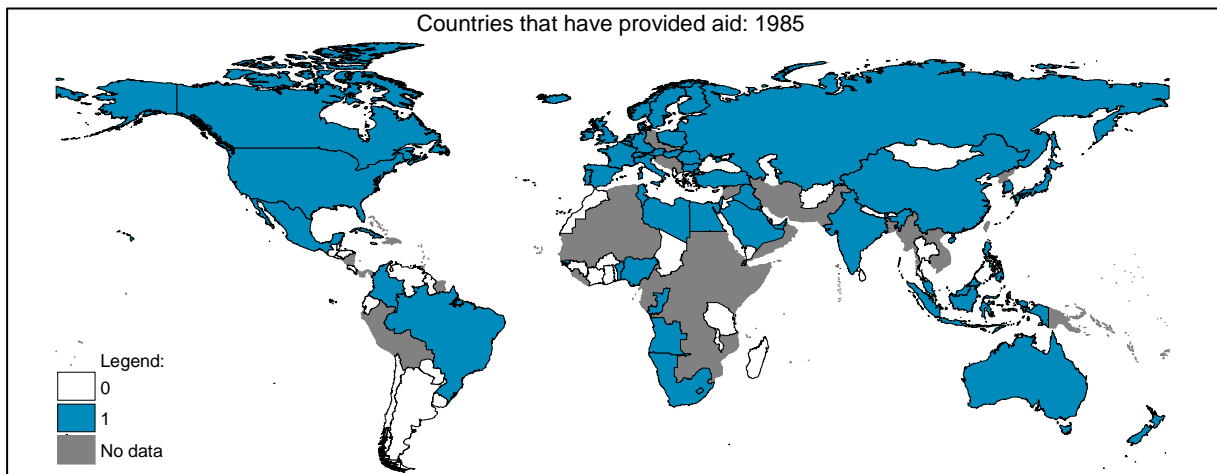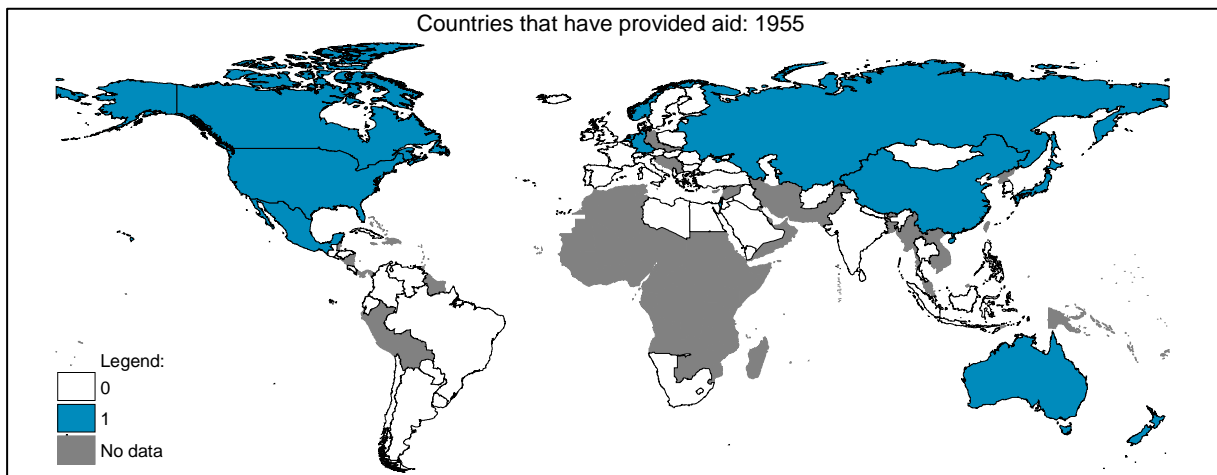
Source: Own data collection.

Figure 2: World maps of aid donors (narrow definition, 1955, 1985, and 2015)
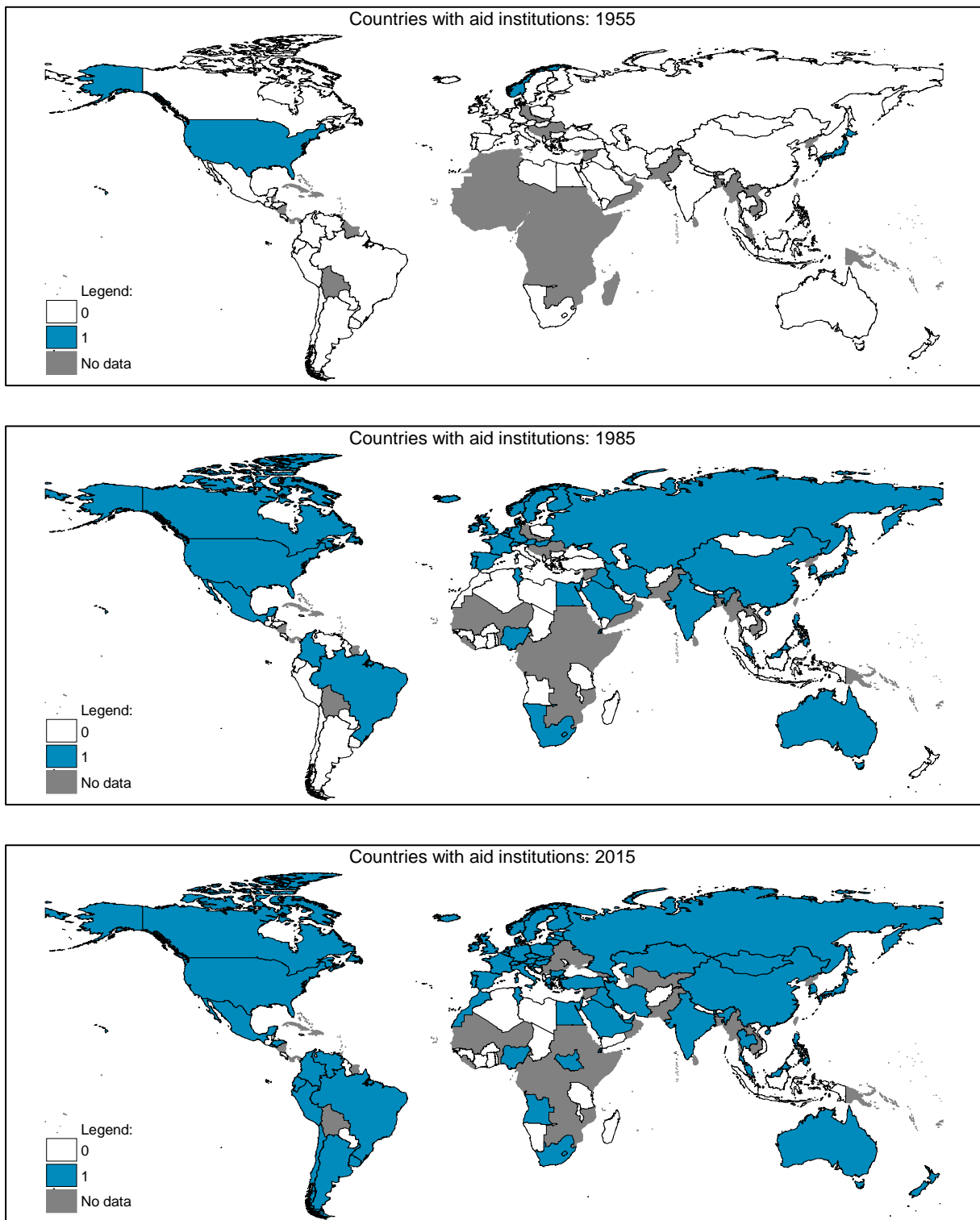
Source: Own data collection.

Figure 3: Year of first aid institution in comparison (five-year periods, 1950-2015)
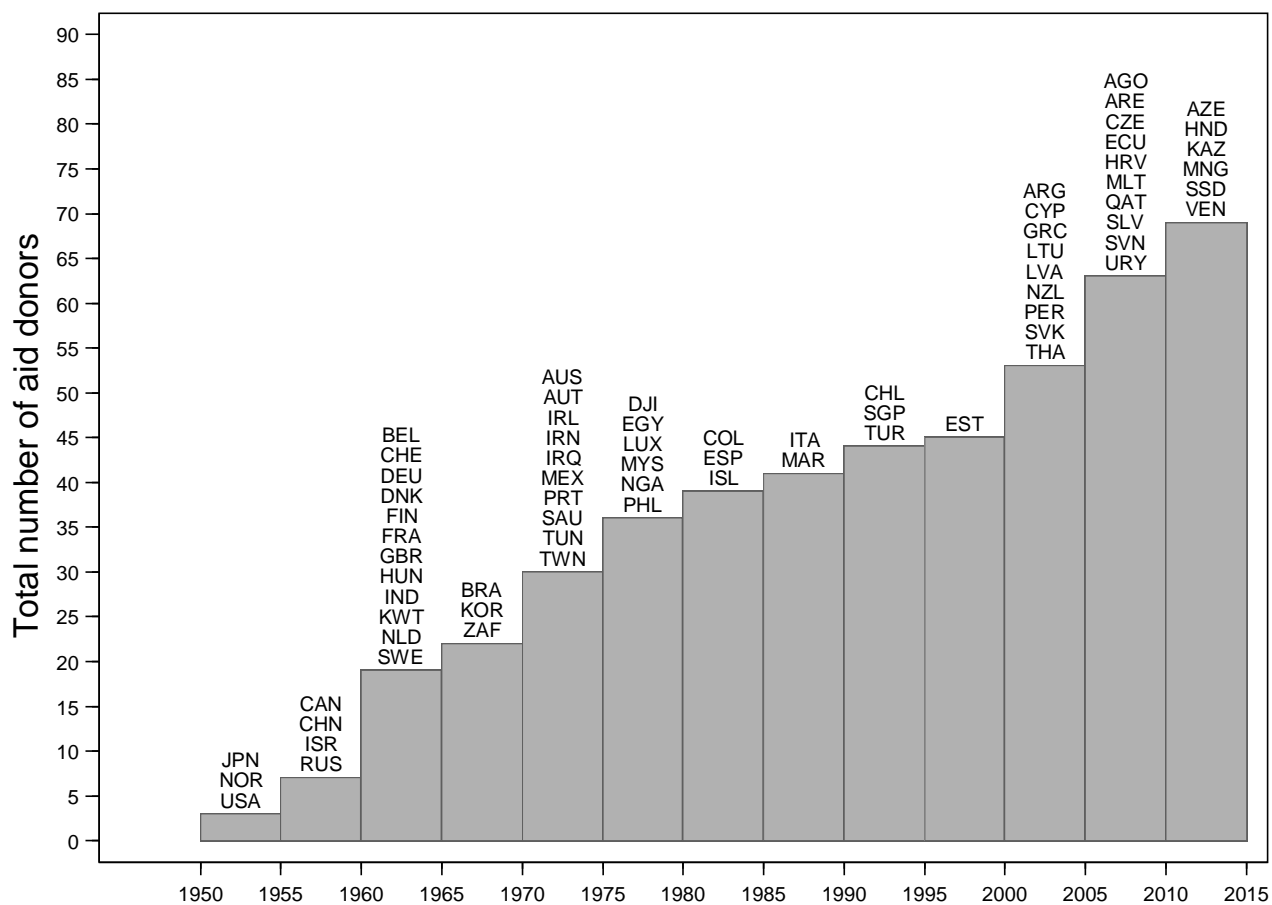
Source: Own data collection.

Figure 4: Marginal effect of democracy on aid institution conditional on income
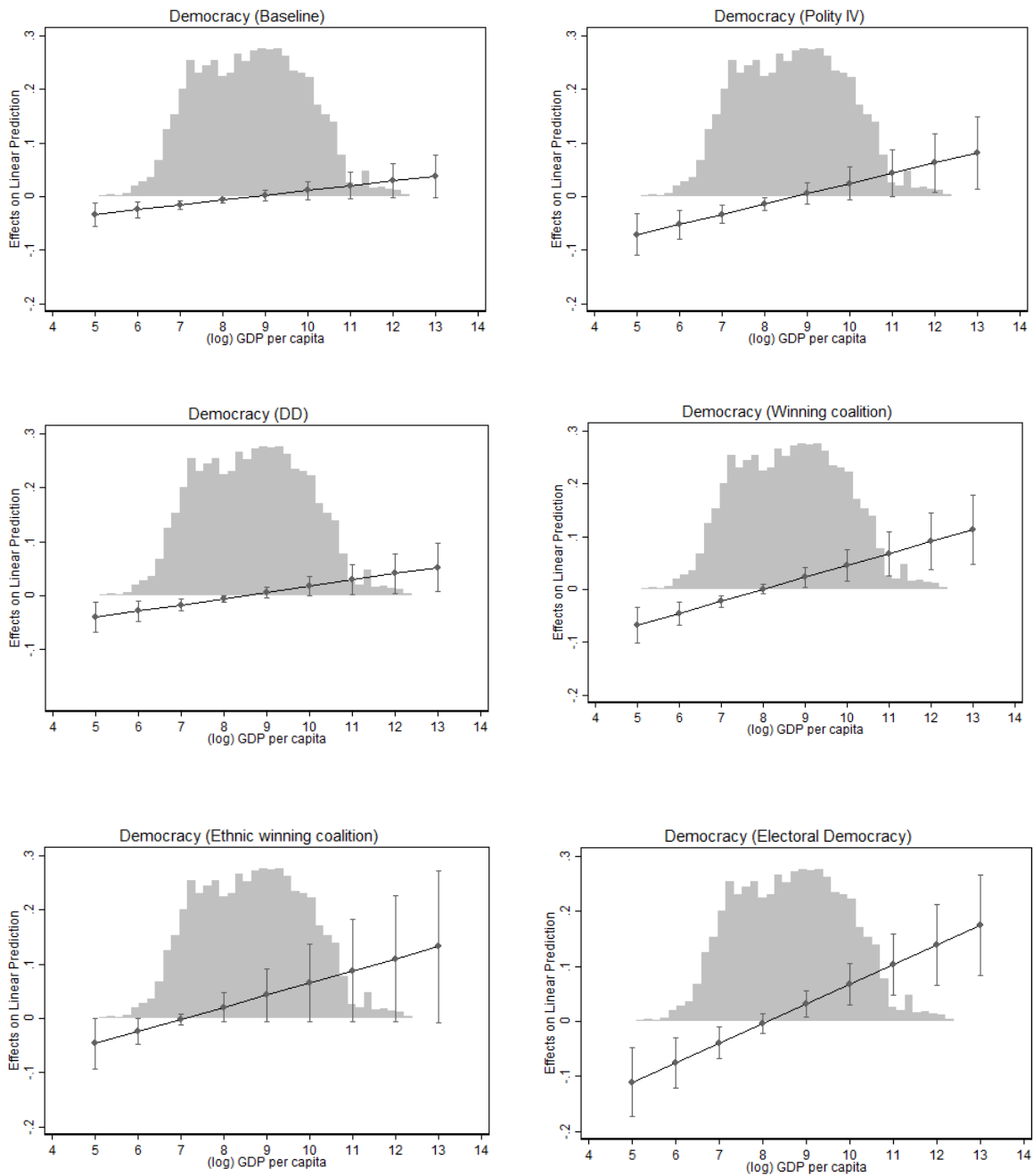
Note: The marginal effect plots are based on the results in Table 4. They display the marginal effect of democracy at different levels of income on the likelihood to start aid giving using six alternative measures of democracy, using confidence intervals at the 90 percent significance level. In grey, we also display the distribution of (log) GDP per capita in our sample.

Appendix A1: Survey questions

Question 1

1a. Does your country (currently or in the past) provide development cooperation[27] to any other countries? ☐ yes ☐ no

1b. If yes, when did your country first provide development cooperation to another country?

Year:

Comments (if any):

---The following questions only apply if you replied yes to question 1a---

Question 2

2a. Does your country currently have (at least) one administrative body that is responsible for providing development cooperation to other countries? This could be a unit or division in the Ministry of Foreign Affairs, another ministry or government unit, or an independent agency.

☐ yes ☐ no

2b. If yes, please name the leading institution(s) and year(s) this responsibility was adopted:

Name(s):

Year(s):

Comments (if any):

Question 3

3a. In the history of your country, did the responsibility of providing development cooperation lay with another administrative body? ☐ yes ☐ no

3b. If yes, please name the leading institution(s) and year(s) this responsibility was adopted:

---

[27] "Development cooperation" should be broadly understood as including grants, concessional loans, technical assistance and in-kind assistance the main objective of which is the promotion of the economic development and welfare of another country.

This does NOT include: military equipment or services, anti-terrorism activities or humanitarian aid.

Name(s):

Year(s):

Comments (if any):

Question 4

4a. Does your country (currently or in the past) have legislation to govern its development co-operation? ☐ yes ☐ no

4b. If yes, what is/are the name(s) of the corresponding law(s) or regulation(s)?

Name(s):

4c. When did your country first introduce legislation to govern its development co-operation? Year(s):

Comments (if any):

Appendix A2: World maps of democracy (1955, 1985, and 2015)

Democratic vs. autocratic donors: 1955

Legend:
Autocracy
Democracy
No data

Democratic vs. autocratic donors: 1985

Legend:
Autocracy
Democracy
No data

Democratic vs. autocratic donors: 2015

Legend:
Autocracy
Democracy
No data
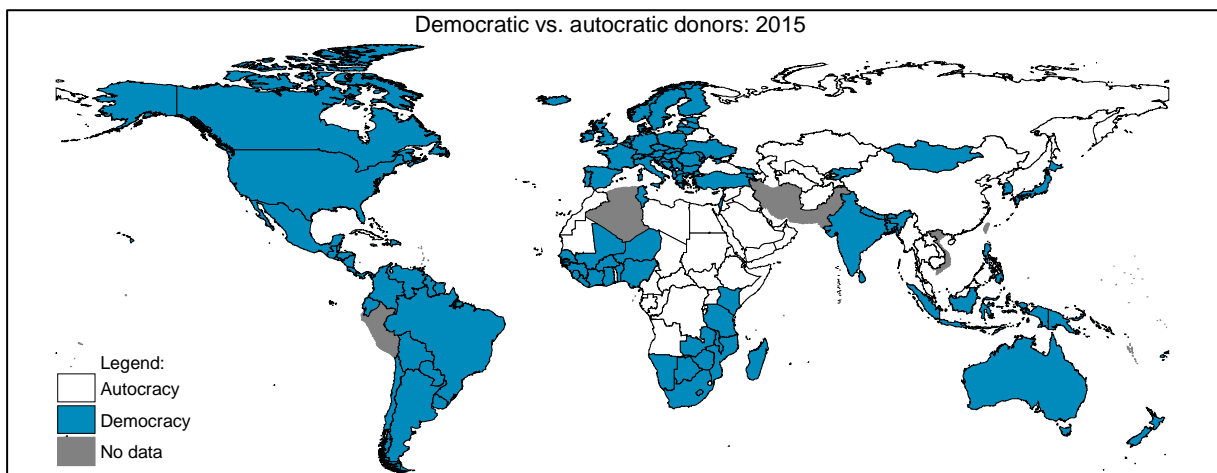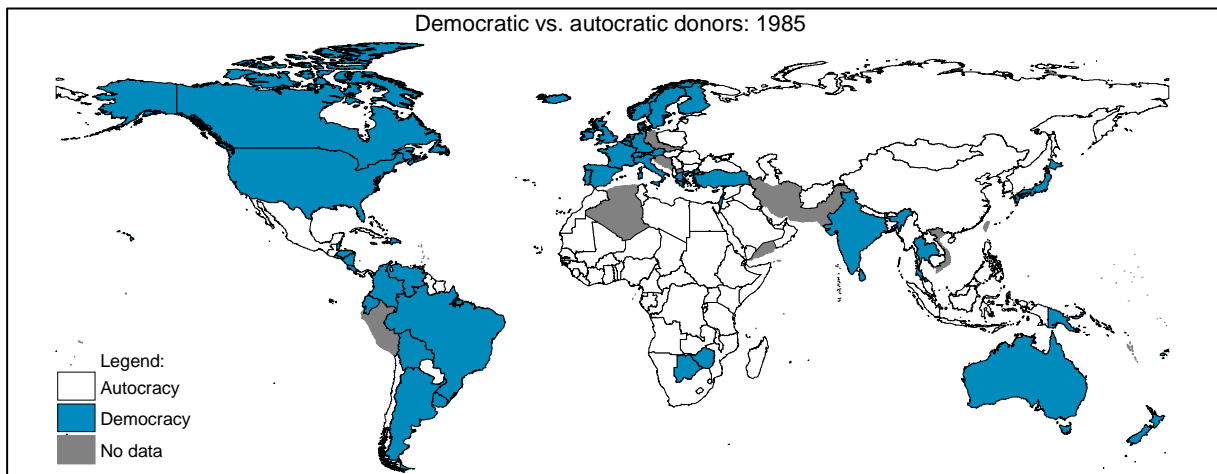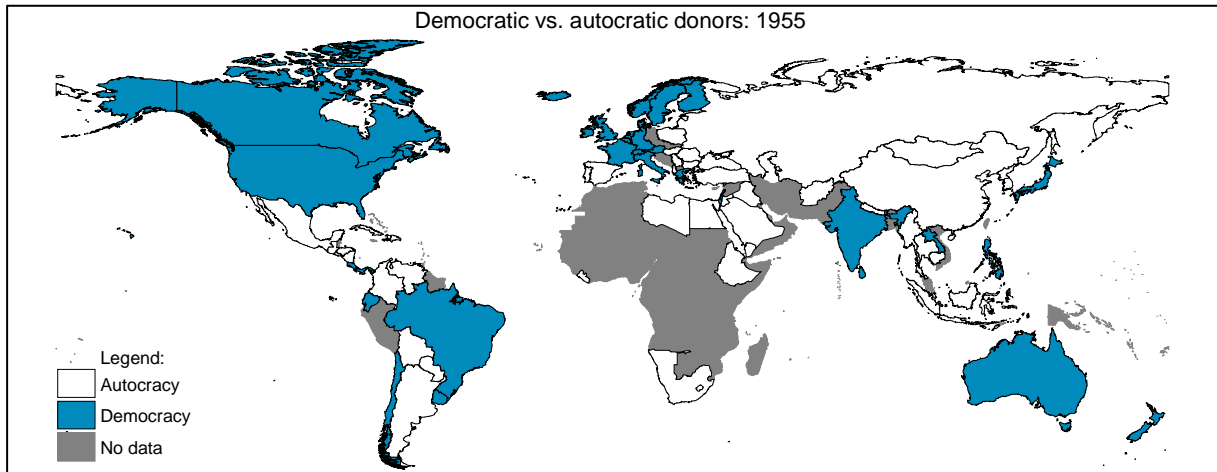
Source: Own data collection based on democracy measure in Acemoglu et al. (forthcoming).

Appendix A3: Correlation matrix

	Variable name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	First aid delivery	1																						
2	First aid institution	0.57	1																					
3	Cold War	-0.01	-0.01	1																				
4	(log) Colony population	0.06	0.06	0.13	1																			
5	Democracy (baseline)	0.05	0.05	-0.24	0.07	1																		
6	Democracy (DD)	0.06	0.06	-0.16	0.07	0.86	1																	
7	Democracy (ethnic winning coalition)	0.08	0.09	-0.28	0.1	0.81	0.78	1																
8	Democracy (electoral democracy)	0.02	0.03	-0.06	0.1	0.27	0.24	0.35	1															
9	Democracy (instrument)	0.07	0.07	-0.35	0.11	0.61	0.61	0.61	0.26	1														
10	Democracy (Polity IV)	0.06	0.07	-0.27	0.1	0.89	0.8	0.88	0.28	0.62	1													
11	Democracy (winning coalition)	0.06	0.08	-0.12	0.1	0.76	0.7	0.77	0.29	0.5	0.79	1												
12	Duration	0.01	0.02	-0.55	0	0.2	0.18	0.21	0.03	0.29	0.24	0.07	1											
13	(log) GDP per capita	0.1	0.11	-0.08	0.12	0.29	0.33	0.43	0.27	0.35	0.28	0.35	0.02	1										
14	Government share of GDP	0	0	-0.04	-0.08	-0.05	-0.11	-0.02	-0.05	-0.09	-0.07	-0.07	-0.12	0.08	1									
15	Intrastate conflict over territory	0.06	0.04	-0.03	0.02	-0.02	-0.01	-0.03	-0.02	-0.01	-0.03	-0.05	0.08	-0.09	-0.07	1								
16	Militarized interstate dispute	0.02	0.02	0.06	0.11	-0.01	0.01	-0.03	-0.04	0.01	-0.03	-0.01	-0.03	0.01	-0.01	0.08	1							
17	Openness	0	0.02	-0.25	-0.17	0.12	0.06	0.13	0.05	0.15	0.12	0.13	0.03	0.34	0.22	-0.1	-0.16	1						
18	Political distance to Russia	0.02	0.03	0.64	0.24	-0.05	0.03	-0.03	0.02	-0.09	-0.01	0.09	-0.47	0.07	-0.16	-0.02	0	-0.24	1					
19	Political distance to US	-0.06	-0.07	-0.51	-0.25	-0.15	-0.23	-0.15	-0.12	-0.12	-0.18	-0.25	0.47	-0.18	0.15	0.08	-0.02	0.15	-0.79	1				
20	(log) Population	0.04	0.05	-0.05	0.19	-0.04	-0.02	-0.04	-0.03	-0.05	0.02	0	0.24	-0.29	-0.23	0.27	0.17	-0.49	0.02	0.01	1			
21	Donor spatial lag (by geographic distance)	0.05	0.07	-0.6	-0.07	0.11	0.04	0.13	0.01	0.19	0.09	0	0.45	0.16	0.14	0.09	0	0.17	-0.58	0.43	0.17	1		
22	Donor spatial lag (by democracy peer group)	0.05	0.06	-0.32	-0.01	0.19	0.15	0.18	0.01	0.31	0.17	0.1	0.34	0.26	0.02	0.12	0.07	0.21	-0.31	0.25	0.04	0.53	1	
23	GDP spatial lag (by geographic distance)	0.03	0.05	-0.59	-0.05	0.07	0	0.08	0.01	0.14	0.01	-0.07	0.52	0.17	0.14	0.07	-0.01	0.12	-0.6	0.55	0.16	0.82	0.47	1
24	GDP spatial lag (by democracy peer group)	0.08	0.1	-0.17	0.16	0.29	0.32	0.3	0.15	0.5	0.22	0.23	0.13	0.62	0.02	-0.05	0.14	0.17	-0.03	-0.12	-0.08	0.4	0.45	0.37

Note: The correlation matrix is based on the estimation sample of Table 2, column 9.

Variable	Definition	Source
Dependent variables		
First aid delivery (wide definition)	1 in the first year in which a country has provided development assistance to another country	Own construction (see Section 2)
First aid institution (narrow definition)	1 in the year during which the first administrative body has been established whose main responsibility is the management of outgoing development assistance	Own construction (see Section 2)
Explanatory variables: baseline model		
Democracy (baseline)	1 if the country is coded as a democracy in a year	Polity IV Project (Marshall et al. 2016); Freedom House (2016); Cheibub et al. (2010), updated in Bjørnskov and Rode (2016); manual corrections as in Acemoglu et al. (forthcoming)
(Log) GDP per capita	Log of real GDP per capita at constant 2005 national prices (in of 2005 US$)	Penn World Tables 9.0 (Feenstra et al. 2015)
Government share of GDP	Ratio of government expenditure relative to total GDP	Penn World Tables 9.0 (Feenstra et al. 2015)
Political distance to US	Ideal point distance to the United States based on voting alignment in the United Nations General Assembly	Bailey et al. (2017)
(Log) Population	Log of total population size (in millions)	Penn World Tables 9.0 (Feenstra et al. 2015)
Openness	Trade dependence of an economy measured as the sum of total exports and imports as a percentage of GDP at current national prices	Penn World Tables 9.0 (Feenstra et al. 2015)
Intrastate conflict over territory	1 if a country is involved in a territorial dispute as target or as challenger in a year	Gleditsch et al. 2002; Harborn and Wallensteen 2012
Spatial lag	Weighted average of the dependent variable for all other countries j, $j \neq i$, weighted by inverse geographic distance	CEPII (Mayer and Zignago 2011); own construction
Duration	Duration count measuring the years since entering the sample (i.e., since the end of the Second World War or since independence)	Correlates of War Database (State System Membership List 2011)
Explanatory variables: extensions		
Democracy (Polity IV)	Discrete ordinal score of a country's regime type on a democracy-autocracy scale based on an evaluation of that state's elections for competitiveness and openness, the nature of political participation in general, and the extent of checks on executive authority, normalized between 0 and 1	Polity IV Project (Marshall et al. 2016)

Democracy (DD)	1 if the country is coded as a democracy in a year	Cheibub et al. (2010), updated in Bjørnskov and Rode (2016)
Democracy (winning coalition)	Five-points measure based on scores for regime type, the competitiveness of executive recruitment, the openness of executive recruitment, and the competitiveness of participation, normalized between 0 and 1	Polity IV Project (Marshall et al. 2016); CNTS Data Archive (Banks and Wilson 2016)
Democracy (ethnic winning coalition)	Size of winning coalition based on ethnic groups with access to power, normalized between 0 and 1	Bormann et al. (2017)
Democracy (electoral democracy)	Index indicator that measures the value of making ruler responsive to citizens through the electoral system, normalized between 0 and 1	V-Dem (Coppedge et al. 2016)
Ideal point distance to Russia	Ideal point distance to the Soviet Union/Russia based on voting alignment in the United Nations General Assembly	Bailey et al. (2017)
Cold War	1 if year is prior to 1991	Own construction
Militarized interstate dispute	1 if a country is engaged in a militarized interstate dispute in a year	Correlates of War Militarized Interstate Disputes (v4.1) (Palmer et al. 2015)
(Log) Colony population	Log of total population living in former colonies, computed based on data on colonial linkages, population data, and state independence (by state system membership)	CEPII (Mayer and Zignago 2011); Correlates of War Project (2011); Penn World Tables 9.0 (Feenstra et al. 2015)

Note: When calculating the natural logarithm of colony population, we added 1 to generate only non-negative values.

Appendix B1: Democracy, income, and aid donorship (first-stage regression results of Table 2)

	(1) Model 3 Democracy	(2) Democracy	(3) Democracy # (log) GDP per capita	(54) Democracy	(5) Democracy # (log) GDP per capita
		Model 6		Model 9	
Democracy wave	0.3546***	1.1245*	4.4036	1.3726**	6.5781
	(0.0000)	(0.0627)	(0.3518)	(0.0209)	(0.1583)
(log) GDP per capita	-0.0010	0.0463	0.5596	-0.1231*	-0.4537
	(0.9840)	(0.4928)	(0.3135)	(0.0766)	(0.4094)
Democracy wave		-0.0947	-0.1996	0.0430	0.5335
# (log) GDP per capita		(0.1807)	(0.7221)	(0.5209)	(0.3298)
Control variables	No	No	No	Yes	Yes
Country and year FE	Yes	Yes	Yes	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes
Number of observations	5,379	5,379	5,379	5,225	5,225
Number of countries	145	145	145	141	141

Notes: The dependent variable of the first-stage regression is indicated in the column header. Results of control variables are not displayed. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Appendix B2: Democracy, income, and aid donorship (1951-2015, additional control variables)

	(1) LPM FE	(2) 2SLS FE	(3) LPM FE	(4) 2SLS FE	(5) LPM FE	(6) 2SLS FE	(7) LPM FE	(8) 2SLS FE
Democracy	-0.0745**	-0.4826***	-0.0771**	-0.4599***	-0.0766**	-0.4604***	-0.0784**	-0.4575***
	(0.0358)	(0.0006)	(0.0332)	(0.0003)	(0.0346)	(0.0003)	(0.0284)	(0.0003)
(log) GDP per capita	0.0062	-0.0157	0.0061	-0.0143	0.0061	-0.0144	0.0057	-0.0147*
	(0.2354)	(0.1078)	(0.2467)	(0.1061)	(0.2455)	(0.1066)	(0.2785)	(0.0950)
Democracy	0.0084*	0.0615***	0.0088*	0.0583***	0.0087*	0.0584***	0.0090**	0.0581***
# (log) GDP per capita	(0.0638)	(0.0020)	(0.0570)	(0.0011)	(0.0595)	(0.0012)	(0.0490)	(0.0010)
Political distance to Russia	-0.0016	0.0040						
	(0.7029)	(0.4785)						
Cold War			0.1465	0.0830				
			(0.8878)	(0.8334)				
Militarized interstate dispute					0.0018	-0.0021		
					(0.7576)	(0.7490)		
(log) Colony population							0.0030	0.0036
							(0.2739)	(0.1787)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE and year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,332	5,225	5,170	5,225	5,170	5,225	5,170	5,225
Number of countries	142	141	141	141	141	141	141	141
R squared	0.0406		0.0415		0.0415		0.0420	
Kleibergen-Paap F-stat		11.27		11.64		11.54		11.76

Notes: The dependent variable is a binary variable that takes a value of one in the year a country establishes its first aid institution. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Appendix B3: Democracy, income, and aid donorship (1951-2015, without EU accession countries)

	(1) LPM	(2) LPM FE	(3) 2SLS FE	(4) LPM	(5) LPM FE	(6) 2SLS FE	(7) LPM	(8) LPM FE	(9) 2SLS FE
Democracy	-0.0024	-0.0057*	-0.0095	-0.0912***	-0.0487	-0.3038***	-0.0934***	-0.0543	-0.3665***
	(0.4503)	(0.0692)	(0.7308)	(0.0032)	(0.1330)	(0.0021)	(0.0018)	(0.1285)	(0.0042)
(log) GDP per capita	0.0170***	0.0116**	0.0120**	0.0126***	0.0094*	-0.0037	0.0119***	0.0062	-0.0099
	(0.0000)	(0.0152)	(0.0185)	(0.0008)	(0.0546)	(0.5853)	(0.0012)	(0.2337)	(0.2233)
Democracy # (log) GDP per capita				0.0111***	0.0054	0.0385***	0.0113***	0.0062	0.0470***
				(0.0054)	(0.2011)	(0.0072)	(0.0035)	(0.1804)	(0.0088)
Government share of GDP							0.0036	-0.0283	-0.0176
							(0.8630)	(0.1387)	(0.4118)
Political distance to US							-0.0070***	-0.0114***	-0.0136***
							(0.0036)	(0.0054)	(0.0022)
(log) Population							0.0075***	-0.0185	-0.0017
							(0.0014)	(0.4035)	(0.9385)
Openness							0.0029	0.0031	0.0097
							(0.5208)	(0.5404)	(0.1210)
Intrastate conflict over territory							0.0250	0.0179	0.0228
							(0.1234)	(0.2677)	(0.1827)
Country FE and year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Duration dependency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	5,104	5,104	4,993	5,104	5,104	4,993	4,944	4,944	4,848
Number of countries	130	130	129	130	130	129	125	125	124
R squared	0.0145	0.0250		0.0155	0.0251		0.0166	0.0244	
Kleibergen-Paap F-stat			18.93			8.186			8.258

Notes: The dependent variable is a binary variable that takes a value of one in the year a country establishes its first aid institution. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Appendix B4: Democracy, income, and aid donorship (1955-2015, logit specification)

(log) GDP per capita	GDP per capita	Marginal effect	P-value	90% confidence interval	
5	148	-0.0008*	0.058	-0.0015	-0.0001
6	403	-0.0014**	0.026	-0.0024	-0.0004
7	1,097	-0.0022**	0.022	-0.0038	-0.0006
8	2,981	-0.0023	0.213	-0.0053	0.0007
9	8,103	0.0048	0.202	-0.0014	0.0109
10	22,026	0.0523***	0.001	0.0266	0.0780
11	59,874	0.2478**	0.021	0.0710	0.4247
12	162,755	0.6096***	0.002	0.2896	0.9296

Notes: The table displays average marginal effects of democracy on aid donorship for various values of per-capita income. Results of control variables are not displayed. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.

Appendix B5: Democracy, income, and aid donorship (1951-2015, multiple lags of democracy)

	(1) baseline (1 lag)		(3) 2 lags		(4) 3 lags		(5) 4 lags	
Second-stage regressions								
Democracy	-0.4599***		-0.4531***		-0.4761***		-0.4798***	
	(0.0003)		(0.0004)		(0.0003)		(0.0004)	
(log) GDP per capita	-0.0143		-0.0133		-0.0149*		-0.0144	
	(0.1061)		(0.1278)		(0.0933)		(0.1026)	
Democracy # (log) GDP per capita	0.0583***		0.0575***		0.0602***		0.0598***	
	(0.0011)		(0.0012)		(0.0011)		(0.0013)	
Country and year FE	Yes		Yes		Yes		Yes	
Duration	Yes		Yes		Yes		Yes	
Controls	Yes		Yes		Yes		Yes	
Number of observations	5,225		5,151		5,074		4,994	
Number of countries	141		141		141		141	
First-stage regressions								
	Demo-cracy	Demo-cracy # (log) GDP p.c.	Demo-cracy	Demo-cracy # (log) GDP p.c.	Demo-cracy	Demo-cracy # (log) GDP p.c.	Demo-cracy	Demo-cracy # (log) GDP p.c.
Democracy wave t-1	1.3726**	6.5781	0.2379	0.3248	0.1949	-0.0794	0.2270	0.1519
	(0.0209)	(0.1583)	(0.7104)	(0.9450)	(0.7629)	(0.9867)	(0.7316)	(0.9751)
Democracy wave t-2			1.2149***	6.7295**	0.0268	-0.0157	0.0275	-0.0769
			(0.0060)	(0.0315)	(0.8927)	(0.9923)	(0.8828)	(0.9597)
Democracy wave t-3					1.3012***	7.5462**	0.2987	1.3012
					(0.0033)	(0.0180)	(0.3952)	(0.6106)
Democracy wave t-4							1.0248***	6.3868**
							(0.0095)	(0.0418)
Democracy wave t-1 # (log) GDP per capita	-0.1231*	-0.4537	-0.0052	0.1571	0.0011	0.2138	-0.0028	0.1856
	(0.0766)	(0.4094)	(0.9451)	(0.7785)	(0.9887)	(0.7049)	(0.9716)	(0.7473)
Democracy wave t-2 # (log) GDP per capita			-0.1260**	-0.6564*	-0.0026	0.0100	-0.0013	0.0273
			(0.0147)	(0.0734)	(0.9148)	(0.9605)	(0.9564)	(0.8868)
Democracy wave t-3 # (log) GDP per capita					-0.1370***	-0.7635**	-0.0230	-0.0490
					(0.0081)	(0.0422)	(0.5741)	(0.8713)
Democracy wave t-4 # (log) GDP per capita							-0.1181**	-0.7423**
							(0.0114)	(0.0483)
Kleibergen-Paap F-stat	11.64		5.313		3.437		3.084	
Hansen test			0.636		0.235		0.159	

Notes: The dependent variable of the second-stage regression is a binary variable that takes a value of one in the year a country establishes its first aid institution. The dependent variable of the first-stage regression is indicated in the column header. Results of control variables are not displayed. Standard errors are clustered at the country level. P-values are in the parentheses. * (**, ***) indicates statistical significance at the ten-percent (five-percent, one-percent) level.