EBA

APPENDIX III

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THE RISE OF SOCIAL PROTECTION IN THE GLOBAL SOUTH: THE ROLE OF FOREIGN AID

APPENDIX III. INTERNATIONAL COMPARATIVE ANALYSIS

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Appendix III. International Comparative Analysis

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Appendix III to The Rise of Social Protection in the Global South: The Role of Foreign Aid

to

The Expert Group for Aid Studies (EBA)

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Methodology

We implement the empirical analysis using econometric methods, models and approaches that capture the complex configuration of the relationship between aid and the expansion of social protection systems in SSA and the Global South in general, while accounting for key determinants of social protection expansion as highlighted by the literature.

Since data on social protection coverage allow us to measure both the scale and evolution of social protection systems, in absolute numbers of beneficiaries as well as in relative terms, normalised by countries' populations, we implemented two empirical strategies.

The first strategy takes advantage of the gradual evolution of social protection systems over the past two decades, looking at the absolute coverage that these systems provide to vulnerable populations, based on the SAPI database.

Looking in particular at the distribution of coverage of non-contributory programmes we observe a left-censored normal distribution, which reflects the fact that many countries in early periods did not have systems of social protection in place, and it was not until the early 2000s when we began to observe a positive and growing coverage in a larger number of low- and middle-income countries (see Figure 1 in main report).

Since we suspect aid allocations to be endogenous and inversely correlated with the scale of social protection systems, the use of ordinary least squares (OLS) would render biased and inconsistent estimates. Therefore, in order to address these constraints, we follow Newey, (1987), and implement a Tobit model with endogenous regressors (IV-Tobit).

This instrumental variable approach has been implemented earlier in similar contexts by Niño-Zarazúa and Santillán-Hernández (2021) and takes the following form:

$$C_{it}^{*} = \beta X_{it-1} + \delta A_{it-1} + \lambda_t + u_{it}, \quad (1)$$

where

$$C_{it} = max(0, C_{it}^{*}),\ i = 1, \dots N, \text{t}= 1, \dots, T,$$

and

$$A_{it-1} = X_{it-1} + \gamma z_{it-1} + \lambda_t + v_{it}. \quad (2)$$

C_{it} measures coverage of social protection programmes (in thousands of beneficiaries) in country *i,* and time *t*; A_{it-1} is our variable of interest and measures the amount of aid that goes to support social protection systems in country *i,* and in time t-1, based on either our 'narrow' or 'broad' definition as described in the previous section. X_{it-1} is a vector of control variables that are expected to influence the expansion of social protection across our sample of countries, based on the evidence arising from the systematic review of the literature, whereas λ_t controls for universal time trends.

We note that the latent dependent variable, C_{it}^{*}, is censored at zero with only C_{it} being observed, i.e. $C_{it} = C_{it}^{*}$ if $C_{it}^{*} > 0$, and $C_{it} = 0$ if $C_{it}^{*} \leq 0$, therefore, the error terms, u_{it} and v_{it}, follow a left-censored at zero distribution, N(0,$\sigma_{u\lceil v}^{2}$).

Finally, z is a vector of instrumental variables that are expected to be correlated with A_{it-1} but not with C_{it}. We note that the aid variable, A, as well as the controls in vector *X* are lagged one period to capture possible delayed feedback effects that aid and other economic, political, and demographic factors can have on contemporaneous levels social protection coverage, and also mitigate the endogenous relationship between aid and scale of social protection systems, since contemporaneous levels of coverage cannot determine aid allocations decisions in period t−1.

Furthermore, we implement the IV-Tobit model with the inclusion of two different combinations of instruments in z. The first combination uses (i) inflation in the donor country weighted by the trade intensity between donor and recipient countries, and (ii) the share of women in the parliament of the donor country weighted by a rainfall shock in the recipient country.

The second combination of instruments uses (i) the inflation in the donor country weighted by the trade intensity between donor and recipient countries but combines it with (ii) the left-wing government parties' seat share as percentage of all governing parties' seat share in donor countries weighted by a rainfall shock in the recipient country.

The rationale behind the use of donor country inflation weighted by trade intensity is that donors are more likely to be generous with aid when their domestic economies are in an upswing which may be linked to higher inflation. This link would be stronger, the deeper a trade relationship is between donors and recipient countries.

The use of the share of women in parliament, or of the share of left-wing government parties, relies on the assumption that both groups are likely to be more generous with the provision of aid than their corresponding counterparts. In other words, women are more likely to be in favour of aid giving than men, and left-wing parties are more likely to be in favour of giving aid than right-wing parties. Both instruments are weighted by rainfall shocks in the recipient country as a proxy for an income shock that would show greater need for aid in the recipient country.

Our prior here rely on extensive evidence that shows a strong correlation between rainfall shocks and economic activity in agriculture (Auffhammer, Ramanathan, and Vincent 2006; Fishman 2016; Lesk, Rowhani, and Ramankutty 2016), firm-level performance (Islam and Hyland 2019), health outcomes (Hyland and Russ 2019; Maccini and Yang 2009), GDP growth (Brown et al. 2014;

Damania, Desbureaux, and Zaveri 2020) and civil conflict (Miguel, Satyanath, and Sergenti 2004). Thus, rainfall shocks are expected to have aggregate effects on vulnerable populations.

The weighting of each of the four instruments is done following Dietrich and Wright (2015). Data on donor inflation comes from World Bank's World Development Indicators, data on parliamentary or government composition are from the Comparative Politics Dataset (CPDS), dyadic trade data come from Correlates of War Project, while annual rainfall data come from the Terrestrial Precipitation: 1900–2014 Gridded Monthly Time Series (Matsuura and Willmott 2014).

The second empirical strategy takes advantage of the scale of social protection coverage relative to the size of the populations in the corresponding countries. However, since social protection programmes cover just a fraction of these populations, we follow Wooldridge (2005) and Rivers and Vuong (1988) and adopt a fractional response model with an endogenous regressor (FRM).

In our case the FRM exploits information on coverage based on the SAPI database, which is normalised by countries' populations.[1] Thus, the fractional response of social protection coverage C_i is $0 \leq C_i \leq 1$, with probabilities $P(C_i=0)>1$, or $P(C_i=1)>0$.

[1] We ran the FRM models using the World Bank's ASPIRE and ILO's WSP datasets. Unfortunately, these datasets only report cross-sectional information at country level, which limited our ability to capture the temporal variation in programmes' take up and its correlation with social protection aid. Therefore, we focus on the SAPI database for the econometric analysis. Results based on the ASPIRE and WSP databases are available on request from the authors.

Since social protection aid, A_i is continuous but expected to be endogenous, we set up the following conditional mean model:

$$E(C_i|\mathbf{z}_i, A_i, a_i) = \Phi(X_i\beta_i + a_i) \quad (3)$$

$$A_i = \mathbf{z}_i\gamma_i + \upsilon_i, \quad (4)$$

where

X_i is in this case a nonlinear function of $\mathbf{z}_i$ and A_i, and a_i is an omitted factor that is correlated with donors' decisions to distribute aid to support social protection systems, A_i, but uncorrelated with the exogenous vector of covariates $\mathbf{z}_i$. The average partial effects can be obtained from the following average structural function:

$$ASF(X_i) = E_{a_i}[\Phi(X_i\beta_i + a_i)] = \Phi(X_i\beta_{ai}), \quad (5)$$

where

$$\beta_{ai} = \beta_i/(1 + \sigma_{a_i}^2)^{1/2}. \quad (6)$$

We adopt several versions of the IV-Tobit and FRM models that capture dimensions that are expected to influence the scale of social protection systems as highlighted by the literature.

The first model, which we refer to as Model 1, includes in vector X, indicators that measure the potential effects of countries' economic conditions and external factors beyond foreign aid. Specifically, we include the following proxy indicators:

- The log income per capita lagged one period to capture the stock of physical capital and the rate of economic convergence in aid-recipient countries.
- The annual rate of economic growth in order to measure the dynamism of the economies.

- The share of total government revenues to GDP (excluding grants and social contributions), to capture the redistributive fiscal capacity of countries to scale up social protection coverage.
- Total natural resources rents (the sum rents from oil, natural gas coal, minerals and forest), measured in percentage of GDP, which are expected to support economic diversification but also potentially undermine social protection expansion via state capture (Caselli & Cunningham, 2009; Caselli & Michaels, 2009; Currie & Gahvari, 2008).
- The unemployment rate measures the conditions in the labour market and the potential demands for protection among the working-age population.
- Trade openness, measured as the sum of imports and exports normalized by GDP, captures the extent to which a country is engaged with the global economy, and may face the need for improving competitiveness at the potential cost of decreased social security expenditures.
- The number of donors involved in the expansion of social protection systems in a given country, to capture the density as well as potentially competing agendas by external actors.
- The average number of social protection programmes in neighbouring countries, which measures the potential policy diffusion effects in the expansion of social protection systems.

A second model, which we refer to as Model 2, adds to Model 1 factors that are associated with socio-demographics, including:

- The age dependency ratio as proportion of the working-age population which is likely to influence the type of social transfer programmes that adopted by political regimes.
- The fertility rate, which is expected to affect aggregate demand and future requirements for social services and welfare benefits.

- The under-five child mortality rates, which we proxy for material deprivations that are expected to influence the expansion of social protection systems. [2] We employ child mortality rates due to the significant informational gaps in our sample regarding poverty headcount rates, and because of the high correlations between child mortality and income poverty (Haile and Niño-Zarazúa 2018).[3]
- The share of the urban population, which is expected to influence the type of social protection benefits that are adopted by governments.
- Population density, measured as the number of people per square kilometre of land area. Higher population density is expected to reduce the unit costs of delivering welfare benefits, thus increasing the probability of their expansion.
- Finally, the Gini index measures the level of income inequality in a country, and how economic disparities may influence preferences for redistribution as highlighted by the literature (Acemoglu et al. 2015; Alesina and Giuliano 2011; Benabou 2000; Niño-Zarazúa et al. 2021).

[2] Child mortality rates are estimated by the UN Inter - agency Group for Child Mortality Estimation, constituted by UNICEF, WHO, World Bank and UN DESA Population Division, and were extracted from the World Development Indicators (World Bank 2019).

[3] The Pearson correlation (r) coefficient, which measures a linear dependence between under-five child mortality rates and the poverty headcount ratio at $1.90 a day (2011 PPP) in the period 1009–2015, was in the order of 0.99 for East Asia and the Pacific, 0.92 for Latin America, 0.96 for South Asia, and 0.96 for sub-Saharan Africa.

A third model (Model 3) adds to Model 1 indicators that capture the influence of history and path dependence in the expansion of social protection systems, including the following:

- The number of years since independence, to capture the maturity of national institutions.
- Dummy variables to measure whether a country i was a colony of three dominant former colonial powers, namely Britain, France and Spain.

A fourth model (Model 4) adds to Model 1 dimensions that capture the effect of institutions to the expansion of social protection systems, including:

- The state of democracy measured by the Electoral Democracy Index from Varieties of Democracy (V-Dem), and which is expected to facilitate the expansion of social protection via political pressure and demands of social policy reform.
- The quality of government, which we proxy by the bureaucratic quality index from the International Country Risk Guide (ICRG), which measures the soundness of institutions and the quality of the civil service.
- The level of party institutionalization, which reflects the capacity of incumbent governments to implement social protection policies, and make credible commitments to voters.
- A measure of compliance with judiciary, which captures the extent to which judicial courts serve as vehicles to expand social policy.
- Military spending – measured as a share of GDP – which captures the financial resources dedicated to defence and security, and can have positive or negative effects depending on the level of state fragility and conflict and the type of regime in control of public finances (Brauner 2015; Rota 2016).

A fifth model (Model 5) adds to Model 1 dimensions in the domain of political ideology that are expected to influence the expansion of social protection systems, including:

- dummies that measure whether a ruling government in time t has a centrist, leftist or rightist political orientation.

Finally, a sixth model (Model 6) adds to Model 1 additional controls that capture the effects of aggregate shocks on the expansion of social protection systems, including:

- The number of years a country i was immersed in a financial crisis in period t-1.
- A dummy variable measuring whether a country i experienced a weather shock in period *t*.

We present a summary of all indicators used in models (1–6) and their sources in Table A1 in Appendix IV.

When implementing the above models, we consider several functional forms. For the case of IV-Tobit models, the first functional form adopts a linear-linear specification, in which coverage is measured in millions of beneficiaries, and social protection ai – which is based on either the broad or narrow definitions – is entered in levels, in millions of US dollars at constant prices. The second functional form adopts a linear-log specification, in which coverage is linear and aid is entered in logarithm, whereas the third functional form adopts a log-log specification.

The linear-linear specification measures how much coverage increase in terms of number of beneficiaries for every dollar increase in social protection aid. The linear-log specification provides a more meaningful interpretation as it shows the absolute change in the level of coverage associated with a per cent change in social protection aid allocations. The log-log specification has the advantage of smoothing the data and allowing coefficients to be interpreted as elasticities.

For the case of the FRM models, since coverage is measured as percentage of countries' populations, we enter social protection aid in three different forms: the first specification measures aid in levels, the second specification measures aid in per capita terms to account for the size of countries' populations and their budgetary requirements for redistribution, whereas the third specification enters aid in logarithmic form.

The first specification provides information about how much coverage increases for every additional dollar in social protection aid. The second specification provides information about how much coverage increases for every per capita dollar of social protection aid that is allocated to the corresponding country. Finally, the third specification provides the most straightforward interpretation of the models, as it shows the change in coverage as the result of a one percentage point increase in social protection aid. We estimate all models and specifications for several groups of donors and world regions.

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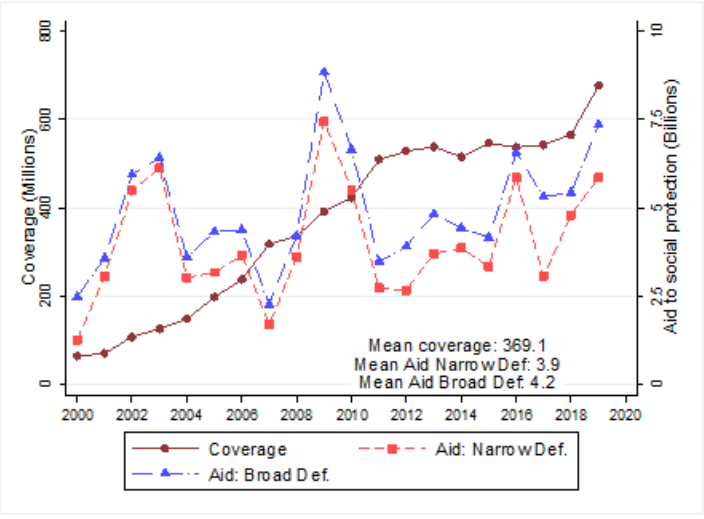
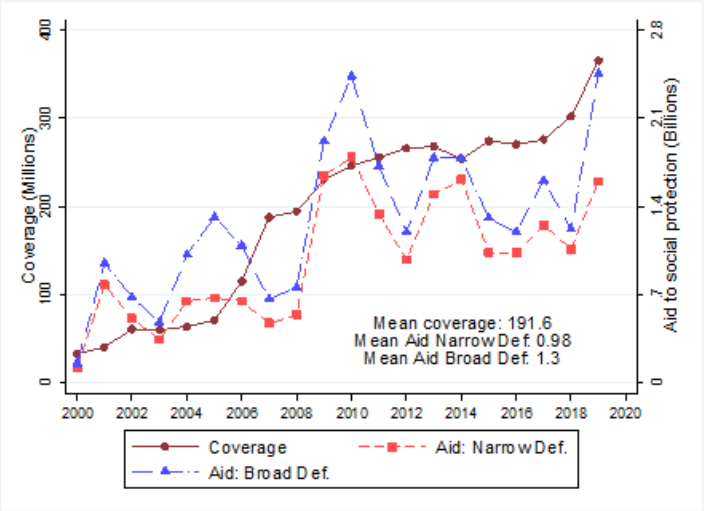
Supplementary Figures and Tables

Figure A 1: Evolution of coverage and social protection aid by world regions

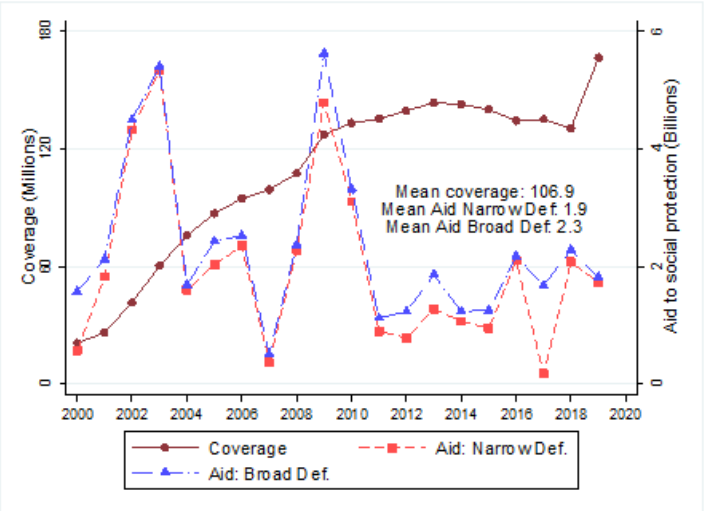
A. Global



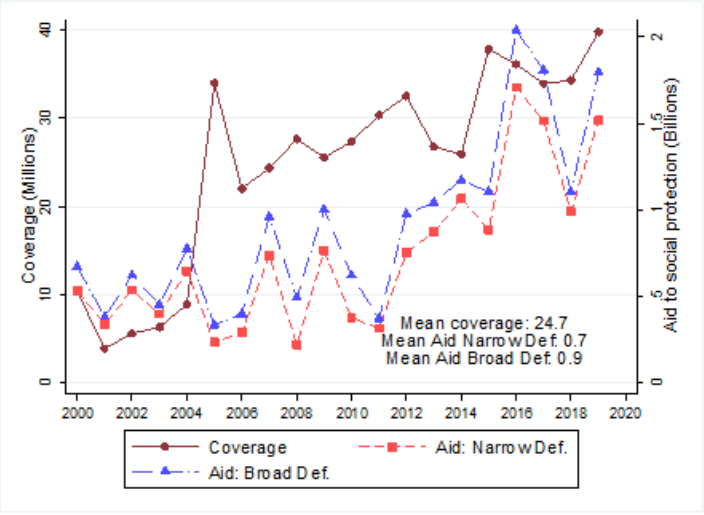
B. Asia and Pacific



C. Latin America and Caribbean



D. Sub-Saharan Africa



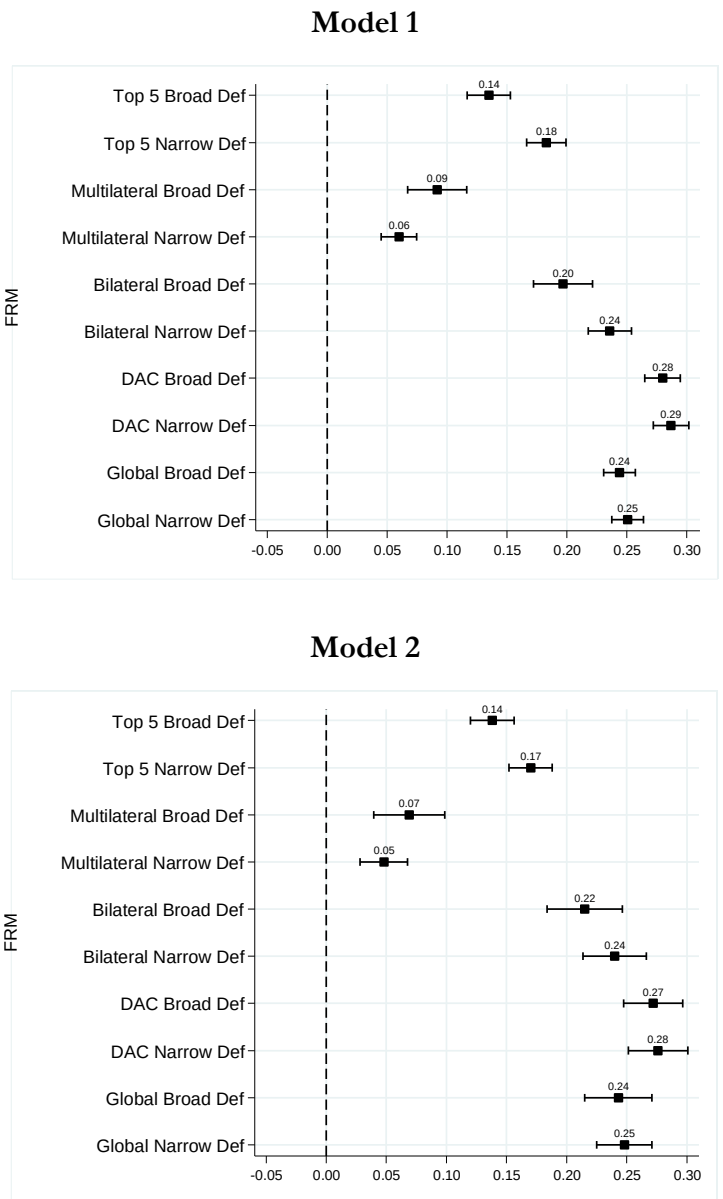
Note: Author´s calculations, based on SAPI database and OECD´s Creditor Reporting System. Narrow Def. includes donations received for social protection. Broad Def. includes donations received for social protection, employment creation, social mitigation of HIV/AIDS, labour rights and social dialogue. Commitments at constant prices in millions of US$.

Table A 1: Average annual aid to social protection by donor, 2000–2019

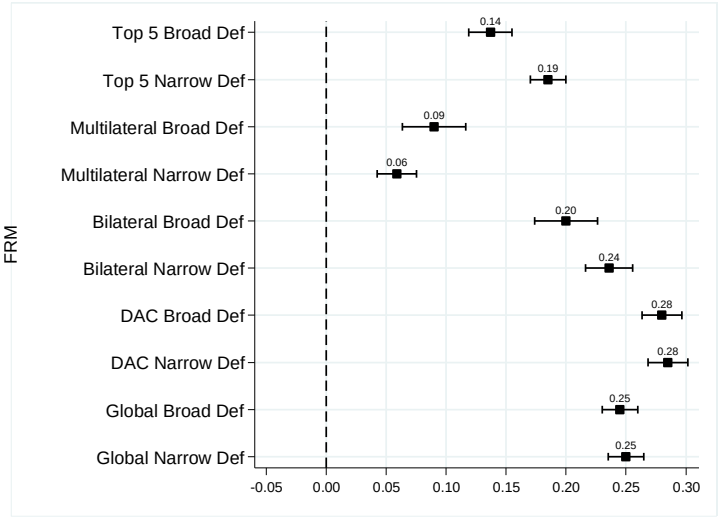
	All	Asia	Latin America	Sub-Saharan Africa
Narrow Definition				
DAC	583.6	248.6	71.4	178.4
Non-DAC	8.0	3.0	0.016	1.1
Bilateral	685.4	290.5	86.2	193.4
Multilateral	3,312.3	688.0	1,890.2	541.1
Top5	421.3	179.3	45.2	121.9
Non-Top5	3,576.4	799.2	1,931.2	612.6
Broad Definition				
DAC	804.8	331.1	109.5	246.1
Non-DAC	8.1	3.0	0.017	1.1
Bilateral	1,040.3	469.9	132.1	276.2
Multilateral	3,870.4	816.4	2,200.0	630.0
Top5	542.3	221.7	70.6	150.5
Non-Top5	4,368.4	1,064.6	2,261.6	755.7

Note: Author´s calculations, based on OECD´s Creditor Reporting System. Narrow Def. includes donations received for social protection. Broad Def. includes donations received for social protection, employment creation, social mitigation of HIV/AIDS, labour rights and social dialogue. Commitments at constant prices in millions of US$.

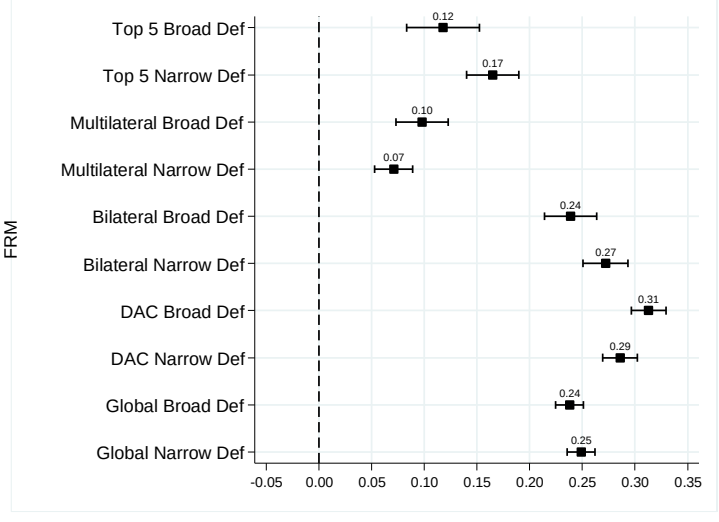
Figure A 2: Effects of aid to social protection on coverage by type of donor. Fractional response model. Global sample



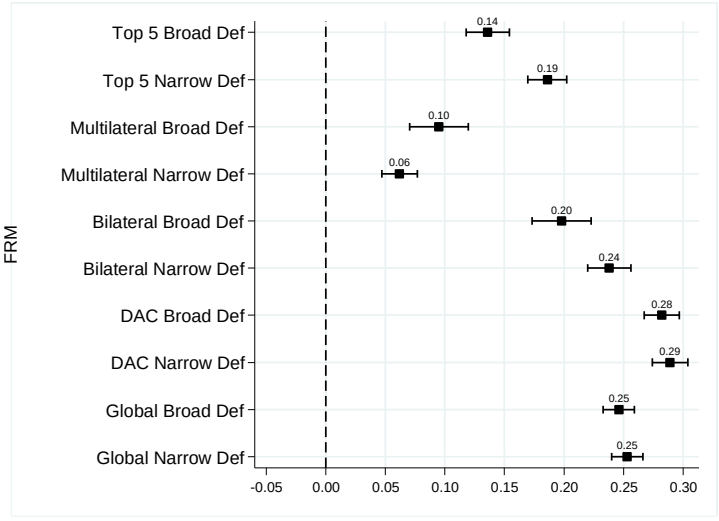
Model 3



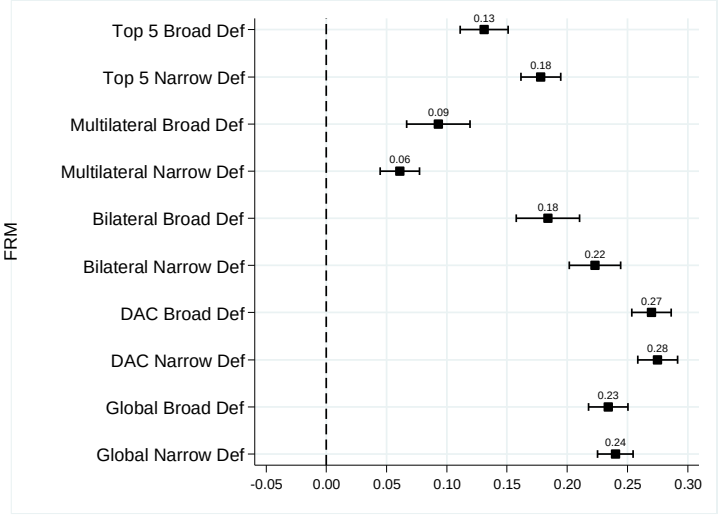
Model 4



Model 5

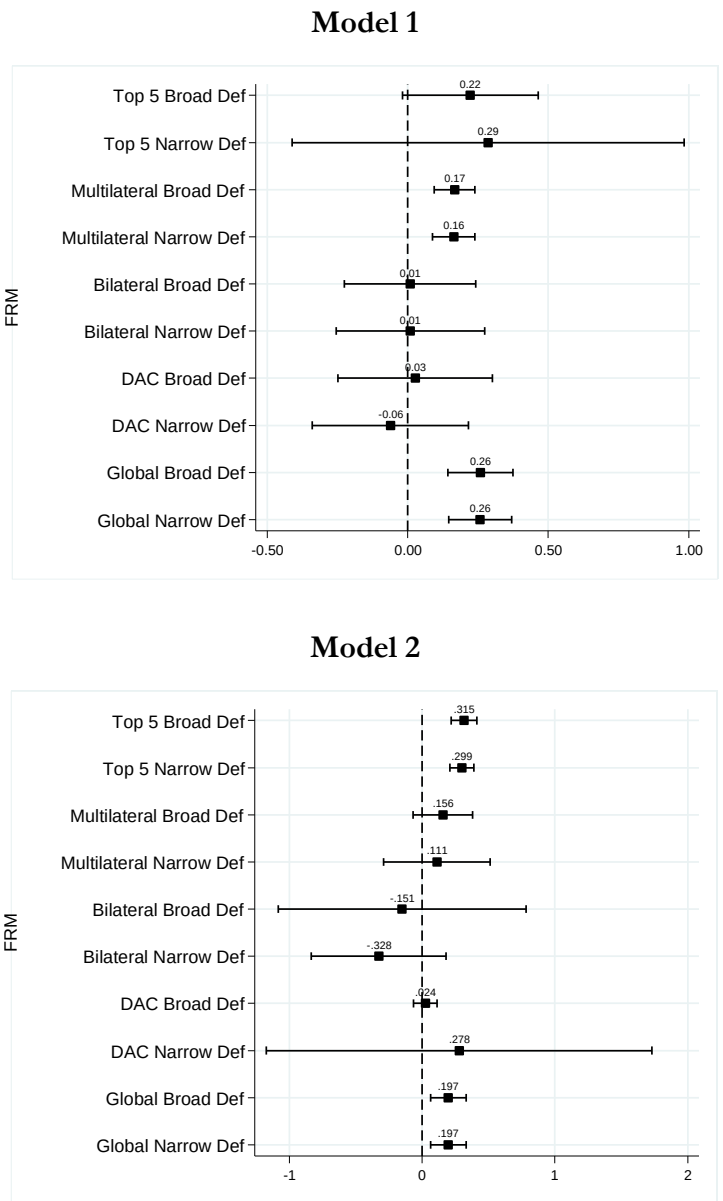


Model 6

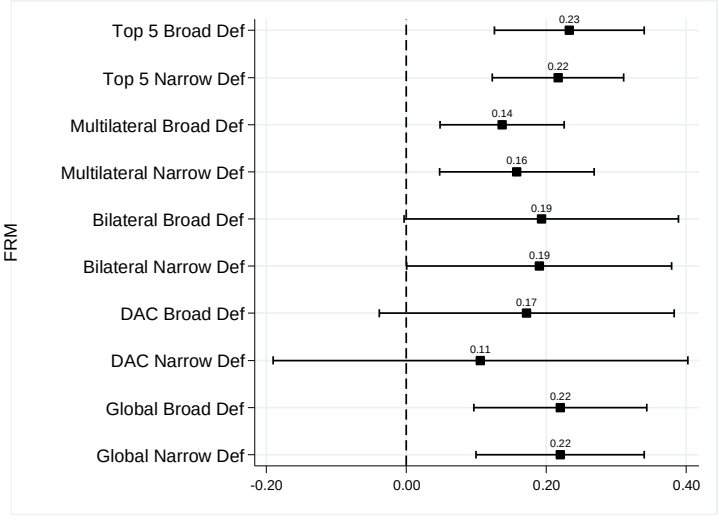


Fractional response model with an endogenous regressor estimates with log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

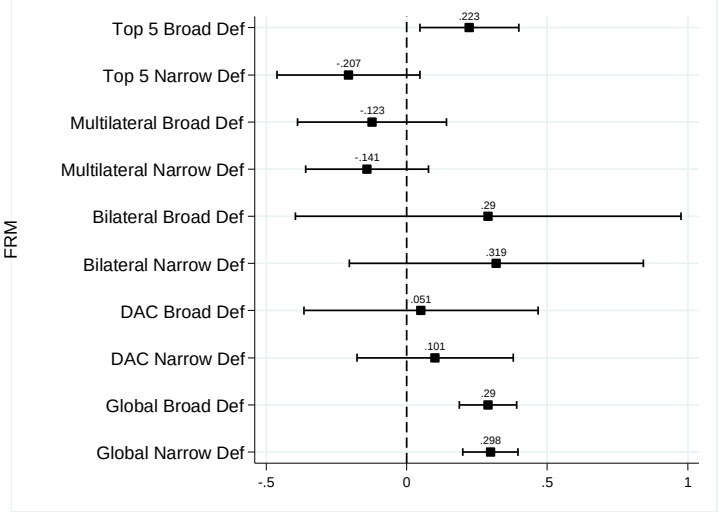
Figure A 3: Effects of aid to social protection on coverage by type of donor. Fractional response model. Sub-Saharan Africa



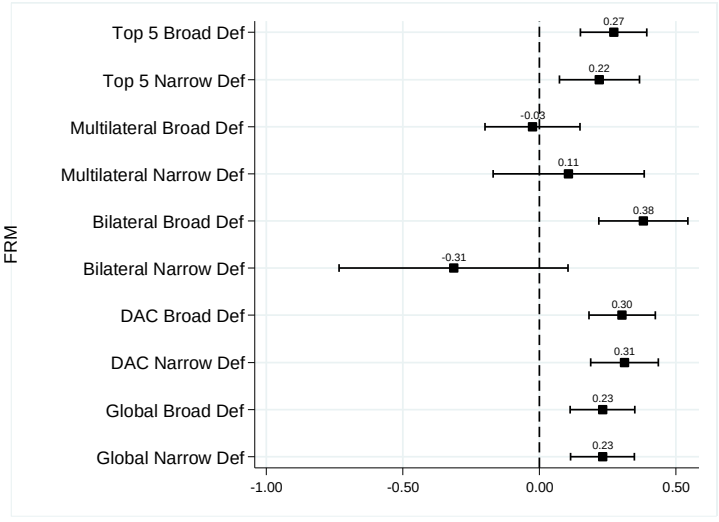
Model 3



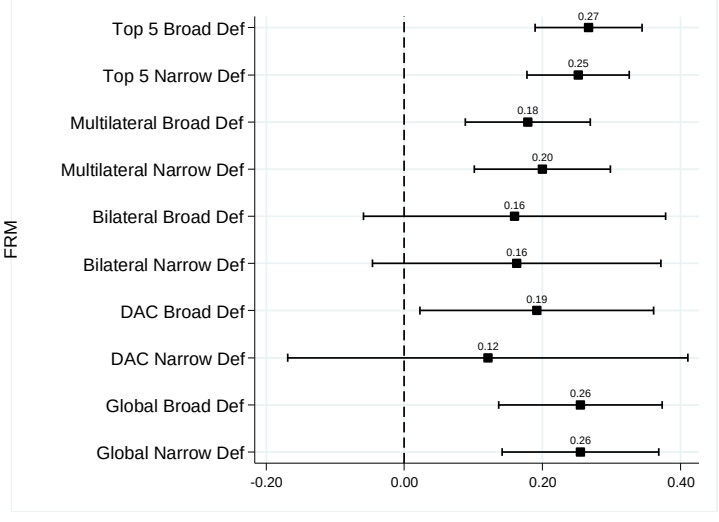
Model 4



Model 5

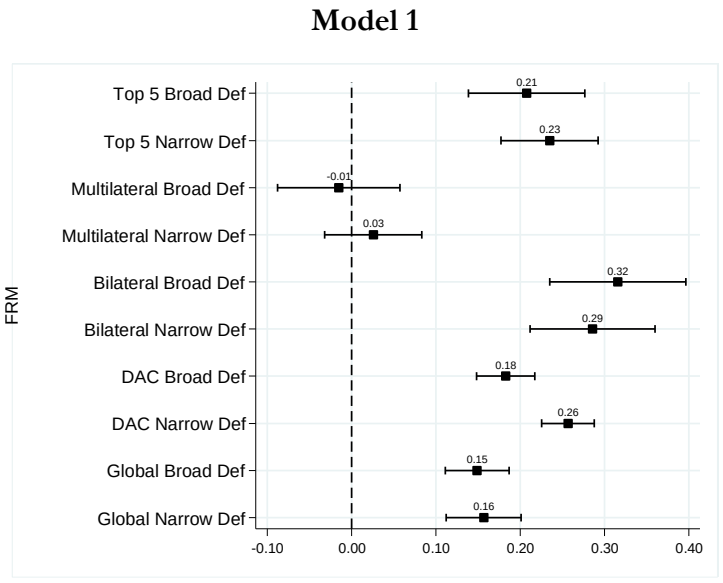


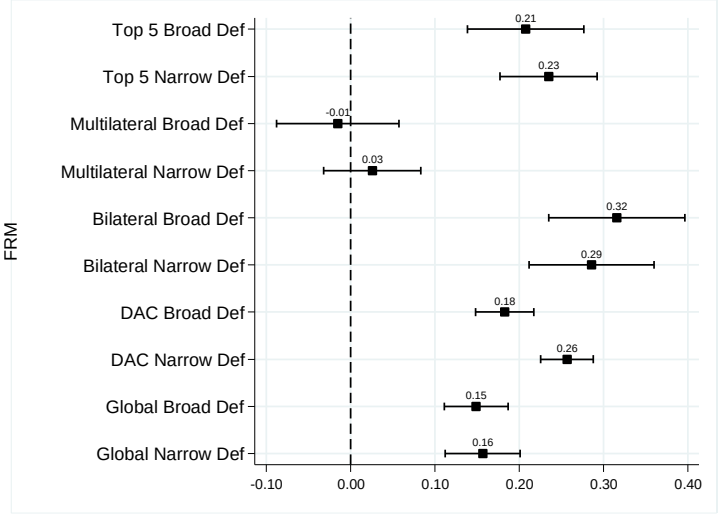
Model 6



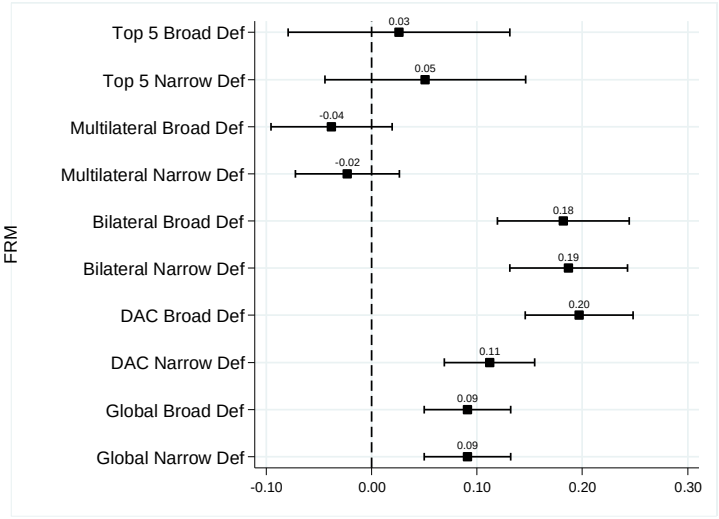
Fractional response model with an endogenous regressor estimates with log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Figure A 4: Effects of aid to social protection on coverage by type of donor. Fractional response model. Latin American & the Caribbean

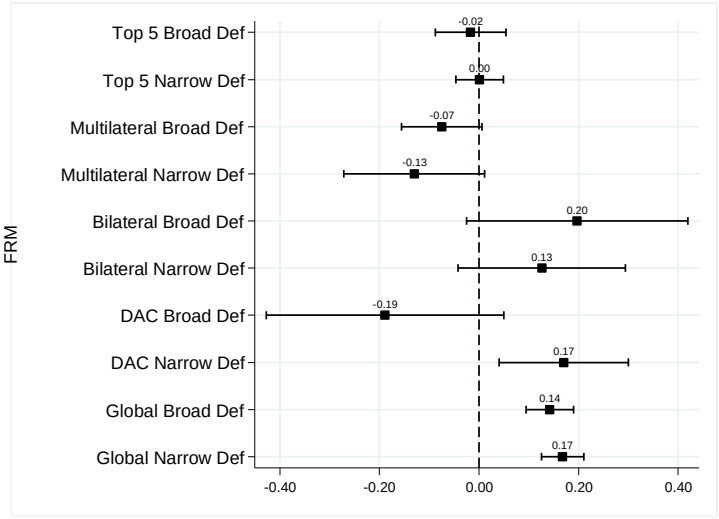




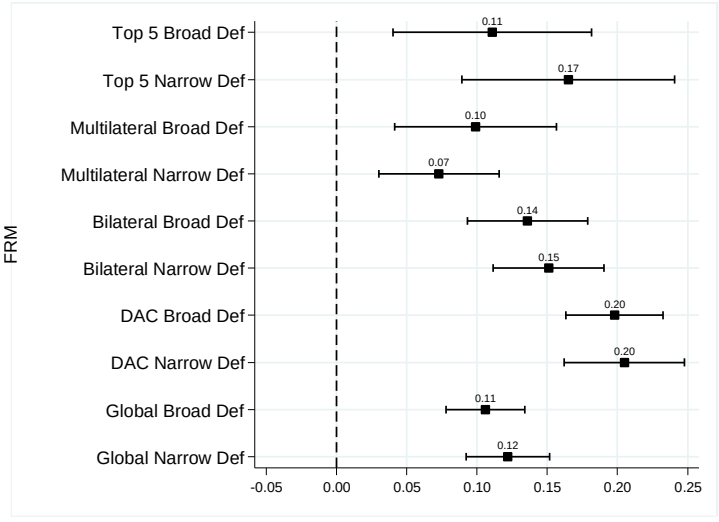
Model 3



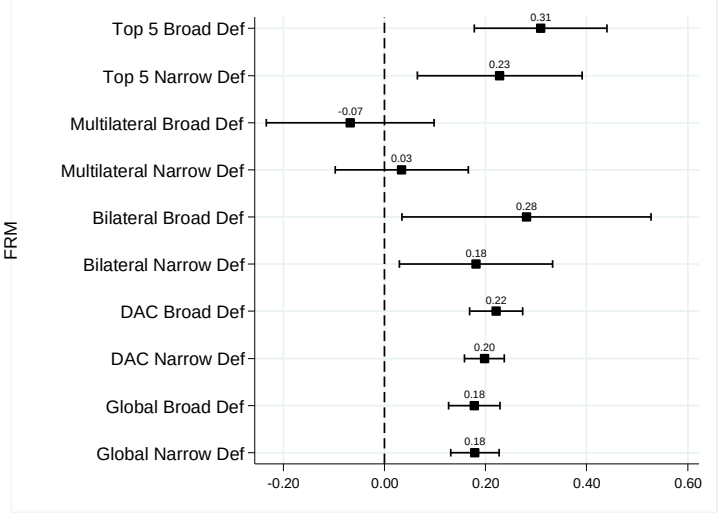
Model 4



Model 5

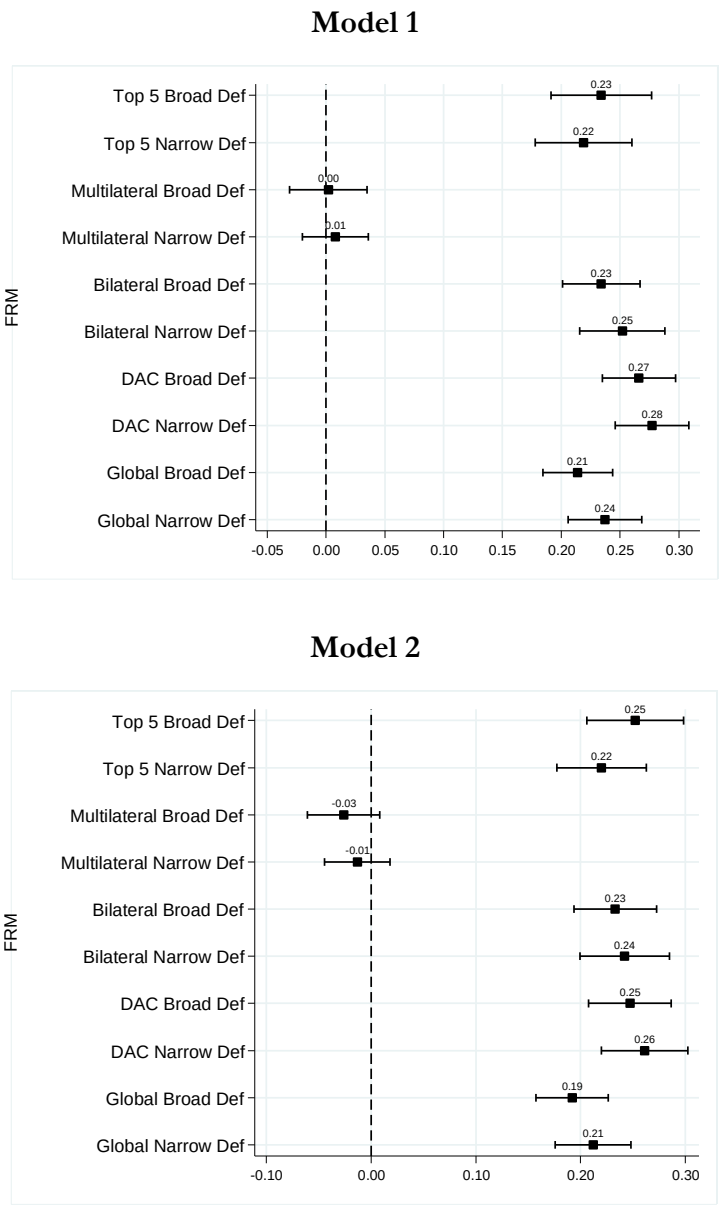


Model 6

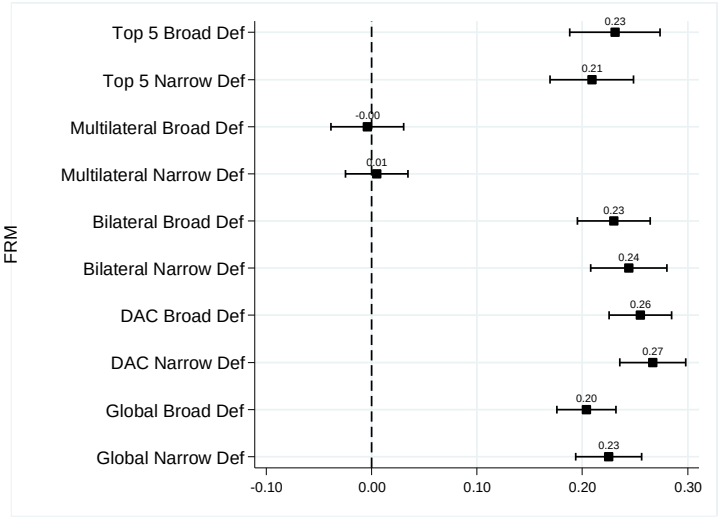


Fractional response model with an endogenous regressor estimates with log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

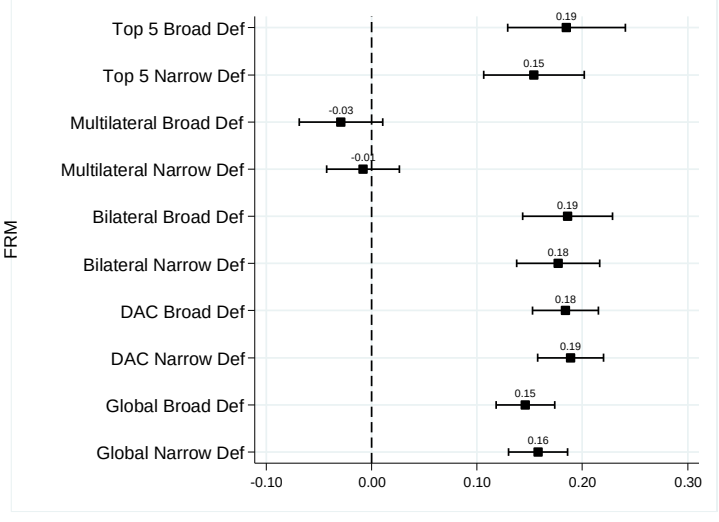
Figure A 5: Effects of aid to social protection on coverage by type of donor. Fractional response model. Asia



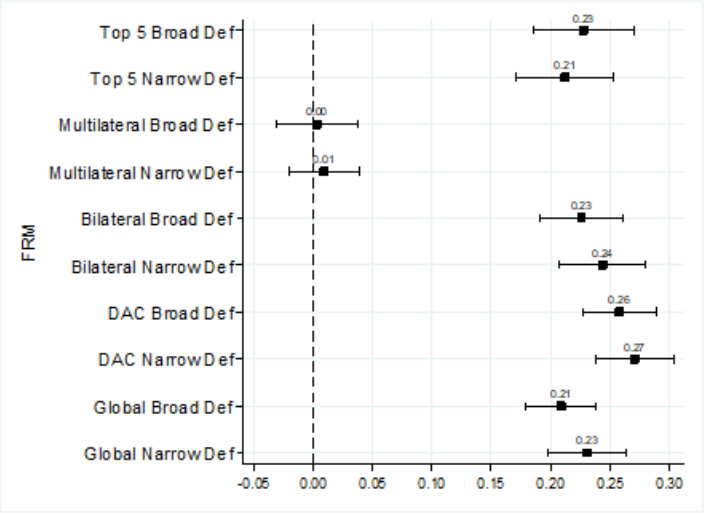
Model 3



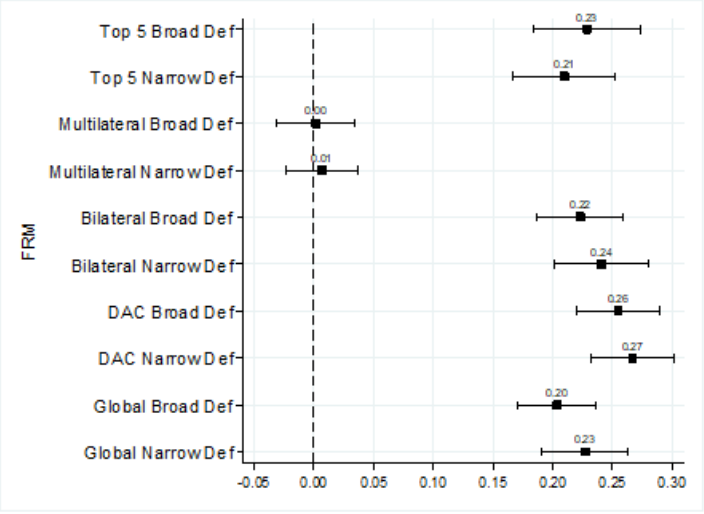
Model 4



Model 5



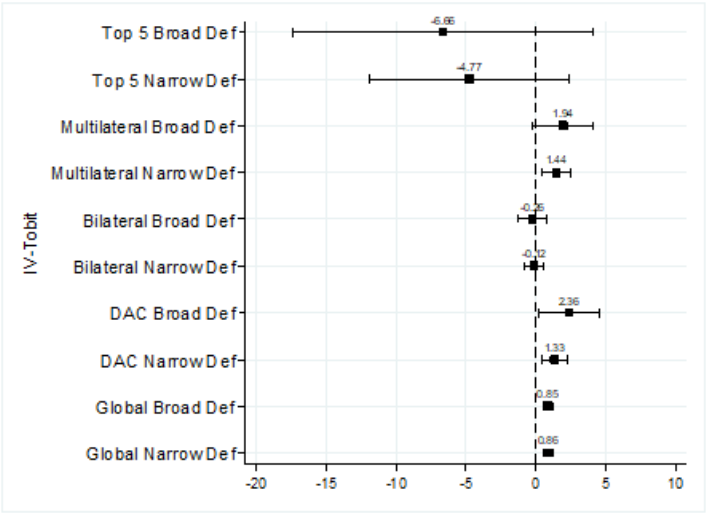
Model 6



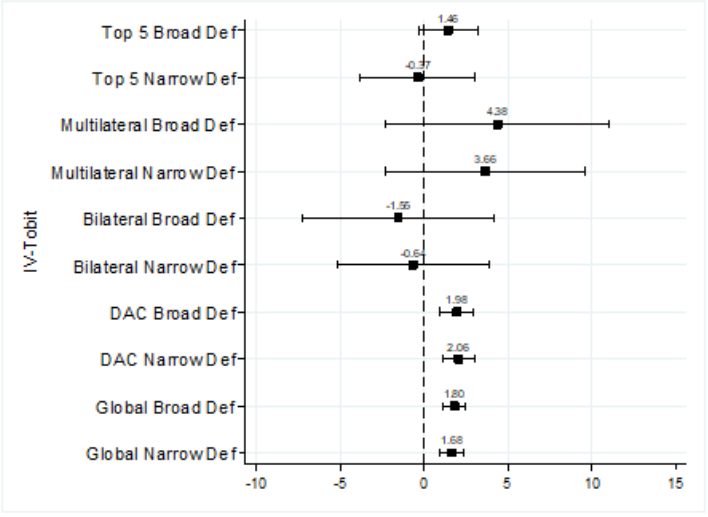
Fractional response model with an endogenous regressor estimates with log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Figure A 6: Effects of aid to social protection on coverage by type of donor. IV Tobit Model

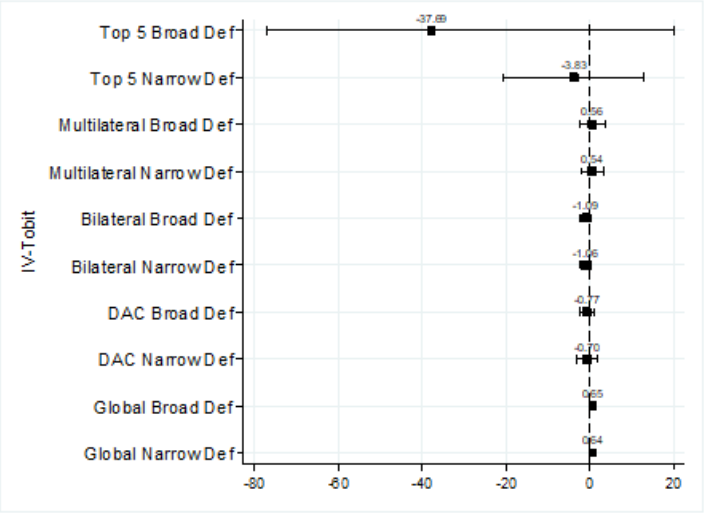
Model 1



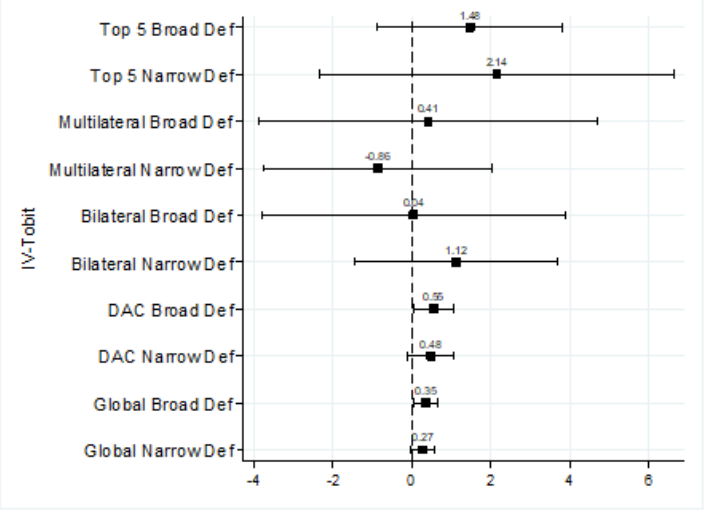
Model 2



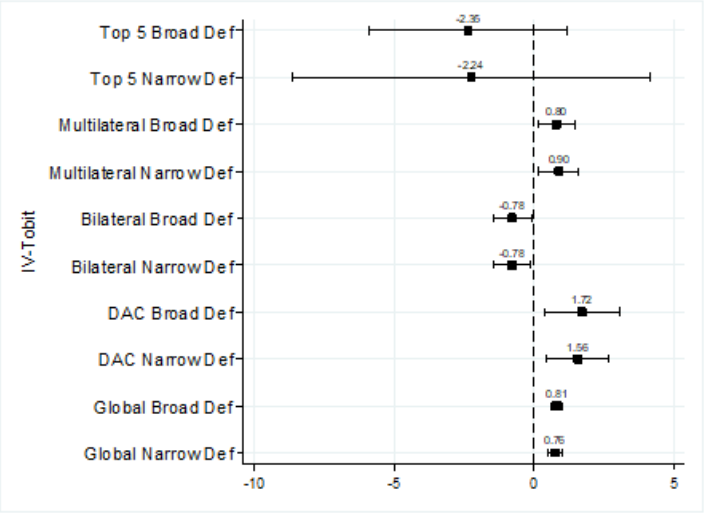
Model 3



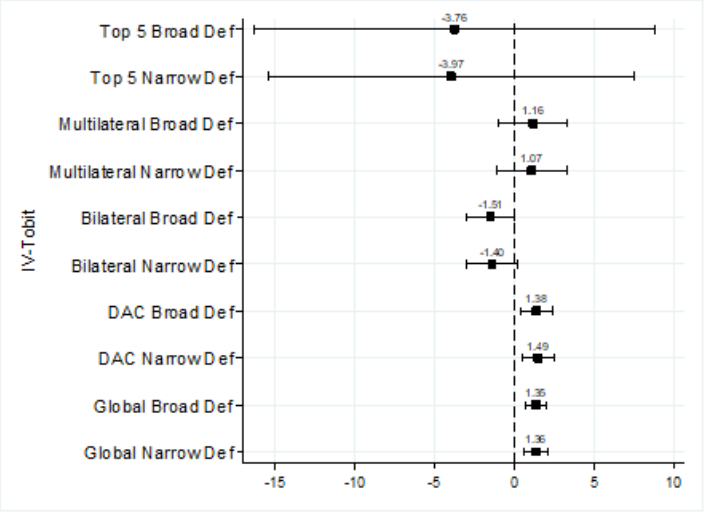
Model 4



Model 5



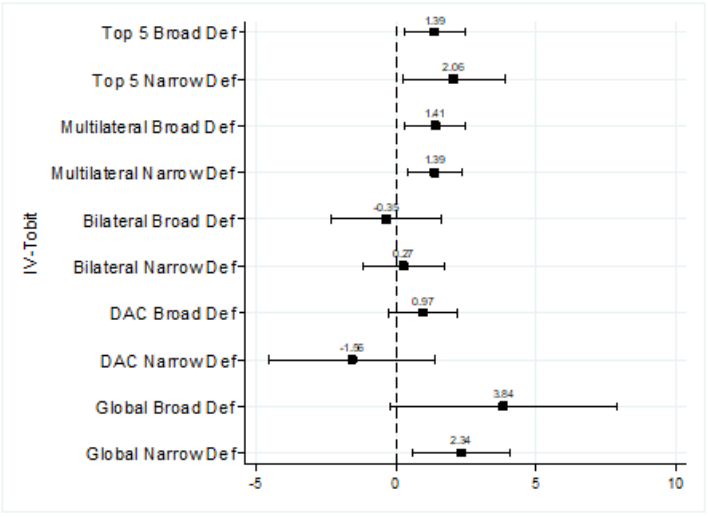
Model 6



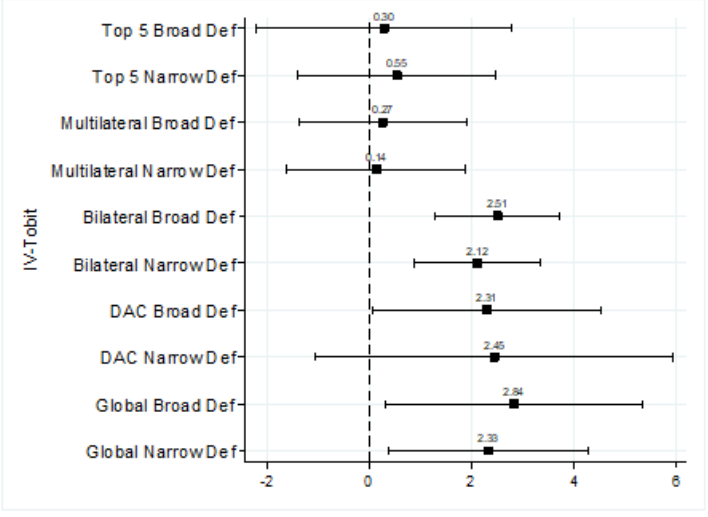
Tobit model with endogenous regressors estimates based on log-log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Figure A 7: Effects of aid to social protection on coverage by type of donor. IV Tobit Model. Sub-Saharan Africa

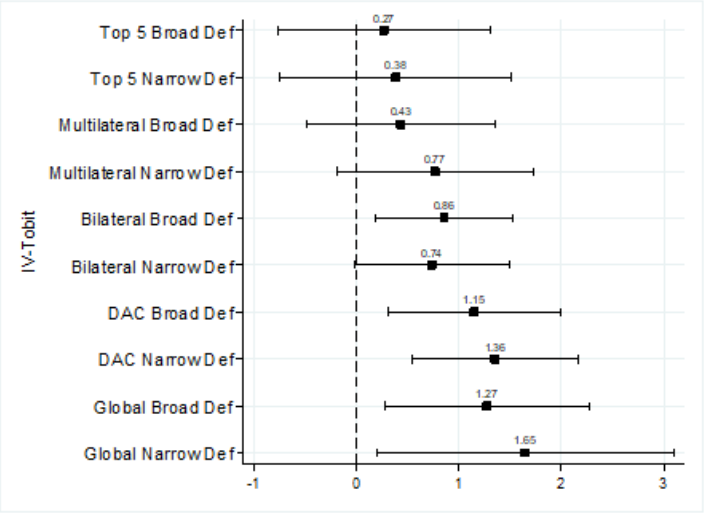
Model 1



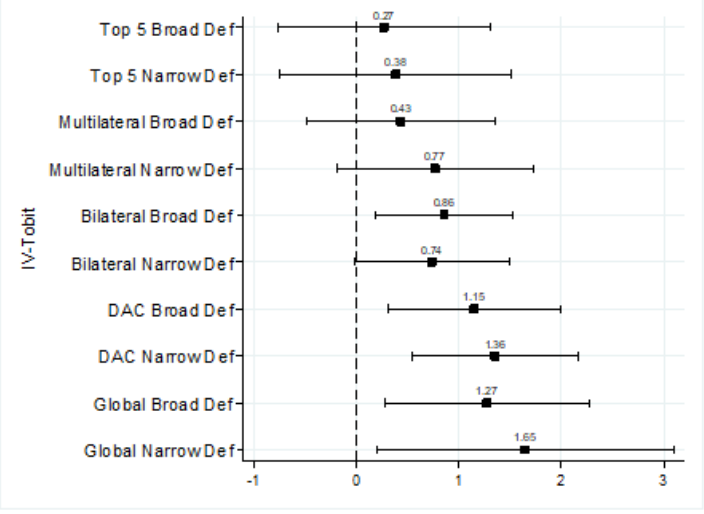
Model 2



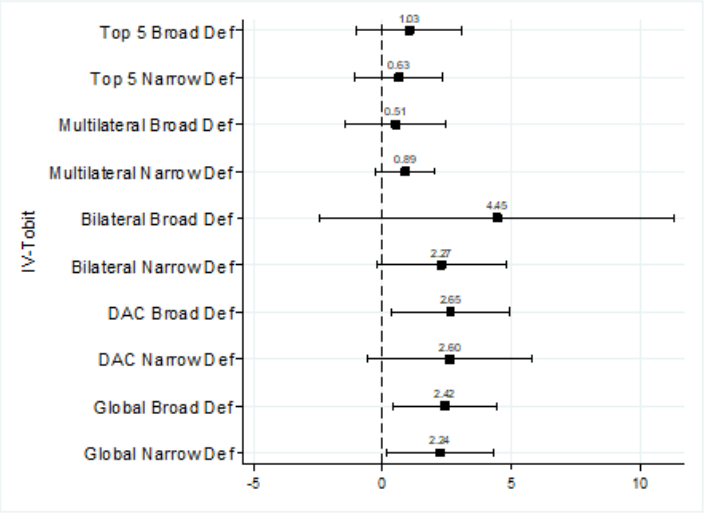
Model 3



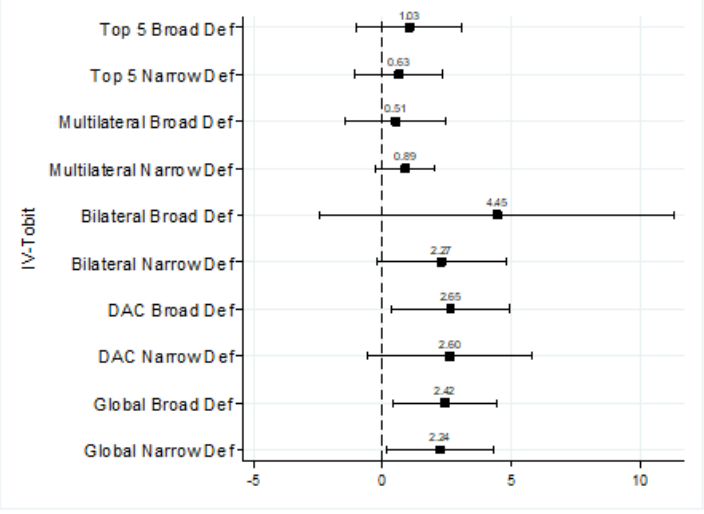
Model 4



Model 5



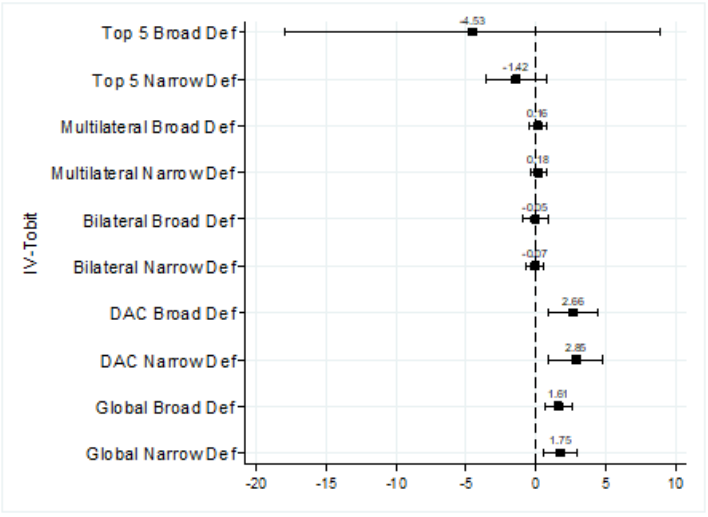
Model 6



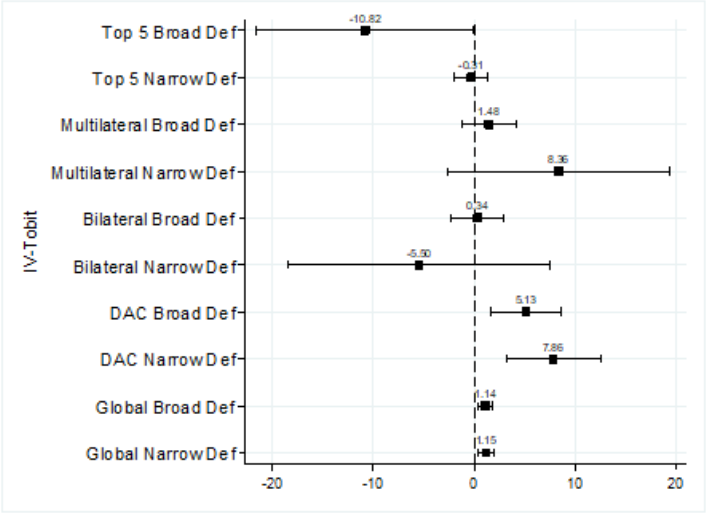
Tobit model with endogenous regressors estimates based on log-log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Figure A 8: Effects of aid to social protection on coverage by type of donor. IV Tobit Model. Latin American & the Caribbean

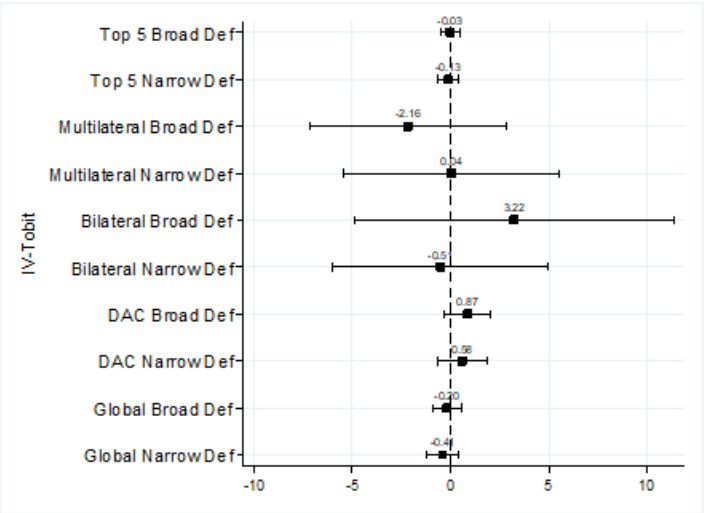
Model 1



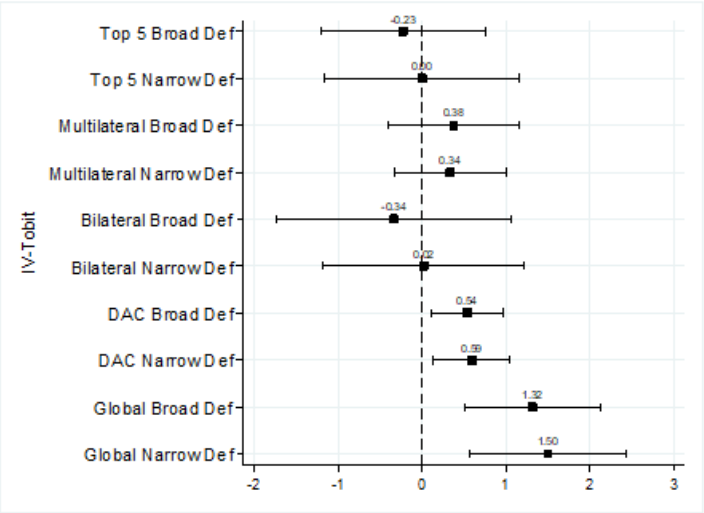
Model 2



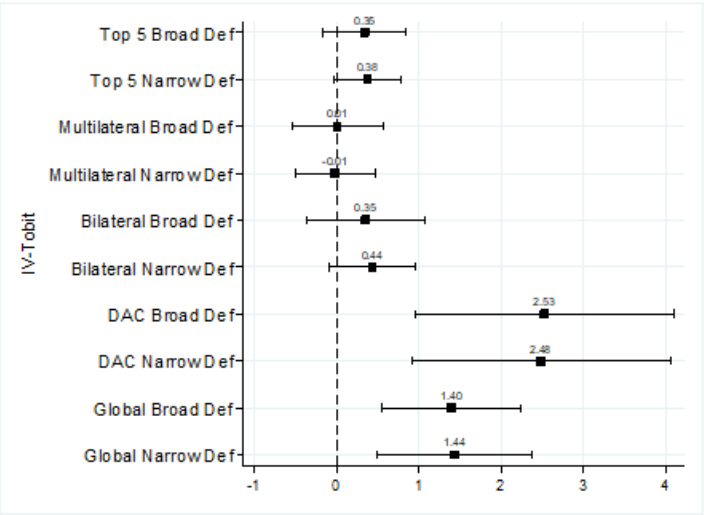
Model 3



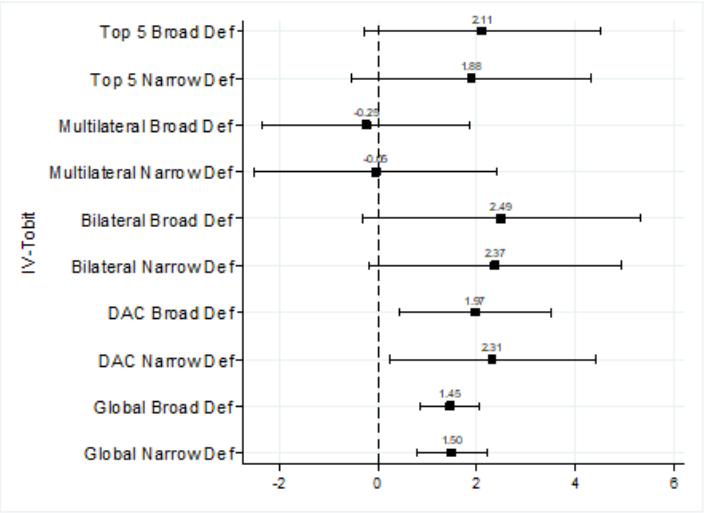
Model 4



Model 5



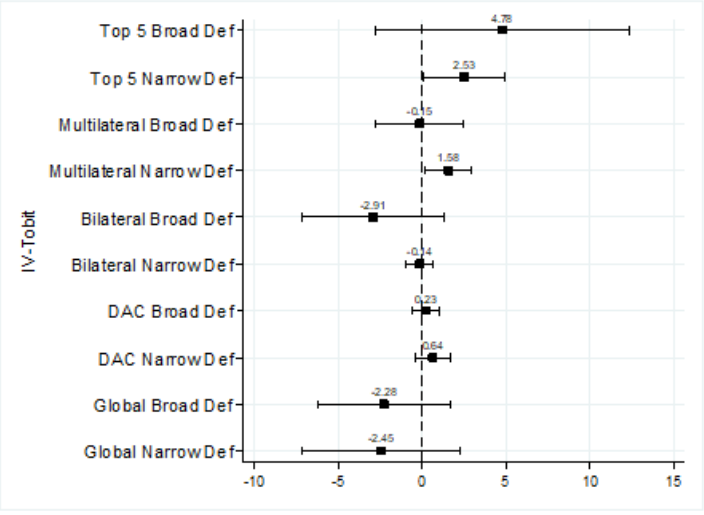
Model 6



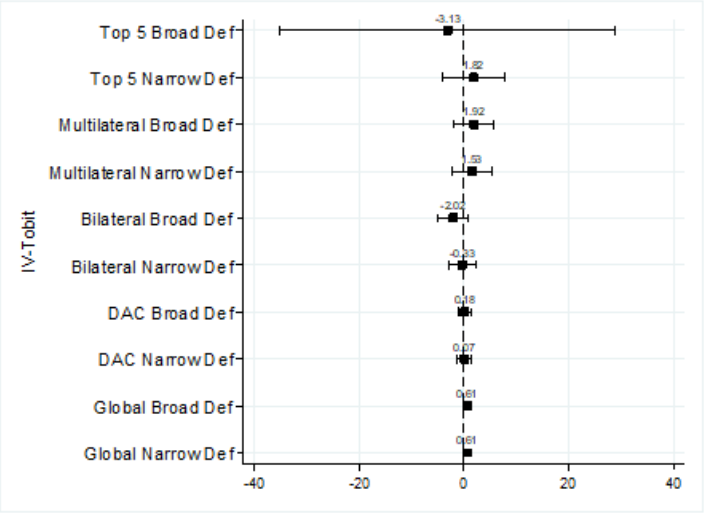
Tobit model with endogenous regressors estimates based on log-log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Figure A 9: Effects of aid to social protection on coverage by type of donor. IV Tobit Model. Asia

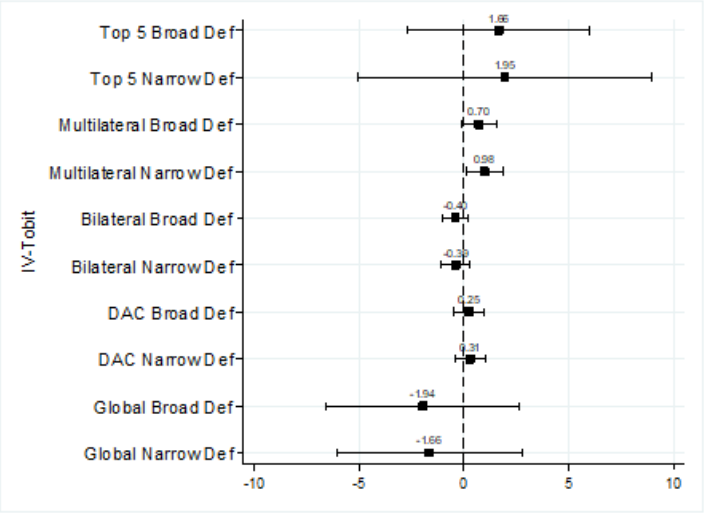
Model 1



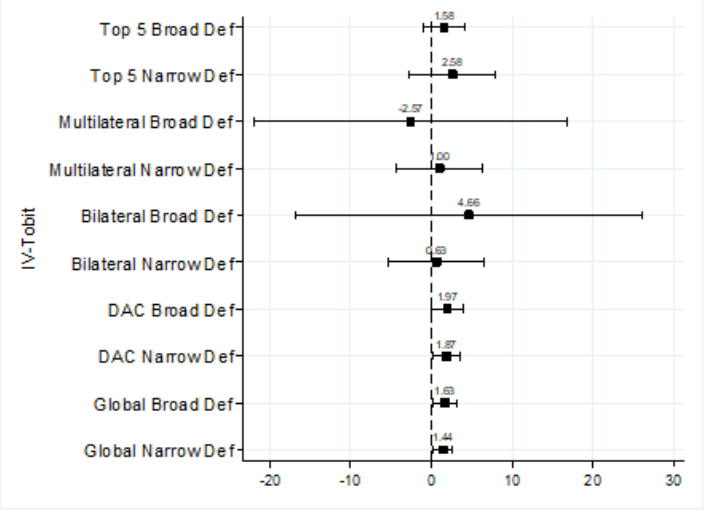
Model 2



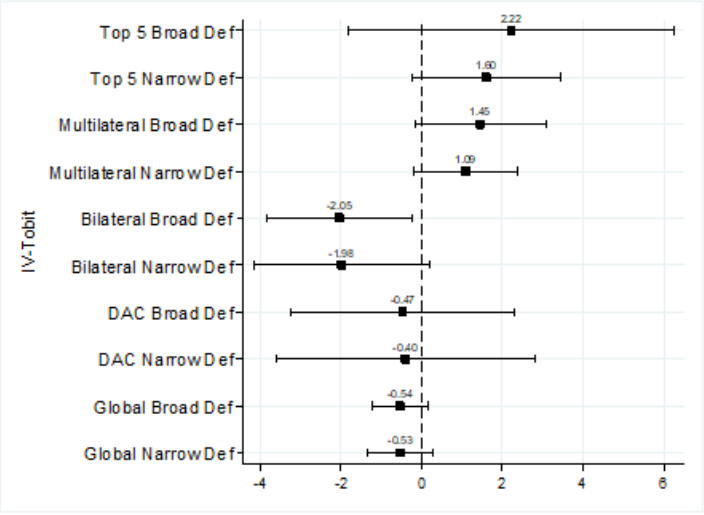
Model 3



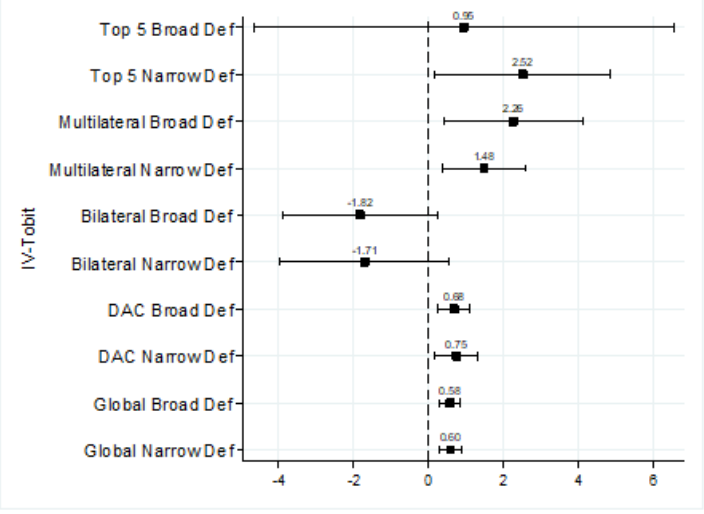
Model 4



Model 5



Model 6



Tobit model with endogenous regressors estimates based on log-log functional form. The log of aid is lagged one period. Full results are presented in Appendix IV. The variables included in each model are presented in Table 2 in Appendix IV. The ropeladder plot shows markers for point estimates, and spikes for confidence intervals at 90% levels. Spikes crossing the reference line at zero show coefficients that are significantly different from zero.
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Table A 2: Summary of estimated effects

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Foreign aid	Foreign aid (L1)	+	+	+	+	+	+	+	+
Donor influence	Number of year since introduction of ILO conventions	-	-	NS	NS	NS	NS	NS	NS
Policy diffusion	Average number of programmes in neighbouring countries	+	+	+	+	NS	NS	+	+
Economic conditions	Log GDP per capita in constant US$ (PPP)	+	+	+	+	+	+	+	+
	GDP growth (annual %)	+	+	+	+	NS	NS	+	+
	Total natural resources rent (%GDP)	-	NS	-	-	NS	NS	-	-
	Trade openness	-	-	-	-	-	-	-	-

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
	Total government revenue excluding grants and social contributions	+	+	NS	NS	+	NS	NS	NS
	Unemployment rate	-	-	NS	NS	NS	-	NS	NS
Demographics	Age dependency ratio (% of working-age population)	NS	NS	-	-	+	+	-	NS
	Fertility rate	-	-	NS	NS	-	-	NS	NS
	Prevalence of HIV, total (% of population ages 15-49)	NS	NS	+	+	NS	NS	+	+
	Child mortality rate	NS	NS	-	-	NS	NS	-	-
	Urban population	-	-	NS	NS	-	NS	NS	NS
	Population density	+	+	+	+	NS	NS	+	+
	Gini index	+	+	+	+	+	+	+	+
History and path dependency	Years since independence	+	+	NS	NS	+	NS	NS	NS

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
	Former colony power: UK	-	NS	+	+	-	-	+	+
	Former colony power: France	-	-	-	-	NS	NS	-	-
	Former colony power: Spain	-	-	+	+	NS	NS	+	+

Table A 2: (continued)

			Global				DAC			
			IV-Tobit		FRM		IV-Tobit		FRM	
			Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Institutions	Democracy	Electoral democracy index	-	-	NS	NS	-	-	NS	NS
	Political settlements	Quality of government	+	+	-	-	+	+	-	NS
		Party institutionalization index	+	+	+	NS	+	+	+	+
		Military expenditure (% of GDP)	-	-	+	+	NS	NS	+	+
		Palma ratio (Top 10% / bottom 40%)	+	+	+	+	+	+	+	+
	Judicial system	Compliance with judiciary	+	+	NS	NS	+	+	-	-
Ideas / Ideology		Right political orientation	NS	NS	+	+	NS	NS	+	+
		Centre political orientation	+	+	+	+	NS	NS	+	+
		Left political orientation	+	+	+	+	NS	NS	+	+
Shocks		Years in financial crisis L1	-	-	NS	NS	NS	NS	NS	NS
		Rain shock	NS	NS	-	-	NS	NS	-	-

IV-Tobit: Tobit model with endogenous regressors estimates based on log-log functional form. FRM: Fractional response model with an endogenous regressor estimates based on log functional form. L1=lagged one period. Full results are presented in Appendix. NS=Not significant effect. + stands for a positive effect. – stands for a negative effect.

Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Table A 3: Summary of estimated effects. Sub-Saharan Africa

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Foreign aid	Foreign aid (L1)	+	+	+	+	+	+	NS	NS
Donor influence	Number of year since introduction of ILO conventions	-	-	-	-	-	-	NS	-
Policy diffusion	Average number of programmes in neighbouring countries	NS	NS	-	-	NS	NS	NS	-
Economic conditions	Log GDP per capita in constant US$ (PPP)	NS	NS	+	+	NS	NS	NS	+
	GDP growth (annual %)	NS	NS	+	+	NS	NS	NS	NS
	Total natural resources rent (%GDP)	NS	NS	-	-	NS	NS	NS	-
	Trade openness	NS	NS	+	+	NS	NS	NS	NS
	Total government revenue excluding grants and social contributions	NS	+	+	+	+	NS	NS	+

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Demographics	Unemployment rate	NS	NS	NS	NS	NS	NS	NS	NS
	Age dependency ratio (% of working-age population)	NS	NS	-	-	NS	NS	NS	NS
	Fertility rate	-	-	NS	NS	NS	-	NS	NS
	Prevalence of HIV, total (% of population ages 15-49)	NS	NS	+	+	NS	NS	NS	NS
	Child mortality rate	NS	NS	-	-	NS	NS	NS	NS
	Urban population	NS	NS	NS	NS	NS	NS	NS	NS
	Population density	NS	NS	NS	NS	NS	NS	NS	NS
	Gini index	+	+	+	+	NS	+	NS	NS
History and path dependency	Years since independence	NS	+	+	+	+	NS	NS	+
	Former colony power: UK	NS	NS	NS	NS	-	NS	NS	NS
	Former colony power: France	+	+	-	-	NS	NS	NS	-
	Former colony power: Spain	NS	NS	-	-	NS	NS	NS	-

Table A 3: (continued)

			Global				DAC			
			IV-Tobit		FRM		IV-Tobit		FRM	
			Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Institutions	Democracy	Electoral democracy index	NS	NS	-	-	NS	NS	NS	-
	Political settlements	Quality of government	+	+	+	+	NS	NS	NS	+
		Party institutionalization index	NS	NS	NS	NS	+	NS	NS	NS
		Military expenditure (% of GDP)	NS	NS	-	-	NS	NS	NS	-
		Palma ratio (Top 10% / bottom 40%)	NS	NS	+	+	NS	NS	NS	NS
	Judicial system	Compliance with judiciary	NS	NS	NS	NS	NS	NS	NS	NS
Ideas / Ideology		Right political orientation	-	-	NS	NS	-	-	NS	NS
		Centre political orientation	NS	NS	NS	NS	NS	NS	NS	NS
		Left political orientation	NS	NS	NS	NS	NS	NS	NS	NS

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Shocks	Years in financial crisis L1	NS	NS	-	-	NS	NS	NS	-
	Rain shock	NS	NS	NS	NS	NS	NS	NS	NS

IV-Tobit: Tobit model with endogenous regressors estimates based on log-log functional form. FRM: Fractional response model with an endogenous regressor estimates based on log functional form. L1=lagged one period. Full results are presented in Appendix. NS=Not significant effect. + stands for a positive effect. – stands for a negative effect.

Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Table A 4: Summary of estimated effects. Latin America

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Foreign aid	Foreign aid (L1)	+	+	+	+	+	+	+	+
Donor influence	Number of year since introduction of ILO conventions	NS	NS	+	+	+	NS	+	+
Policy diffusion	Average number of programmes in neighbouring countries	-	-	-	-	NS	NS	-	-
Economic conditions	Log GDP per capita in constant US$ (PPP)	+	+	+	+	+	+	+	+
	GDP growth (annual %)	NS	-	NS	NS	-	-	NS	NS
	Total natural resources rent (%GDP)	+	+	NS	NS	NS	NS	NS	NS
	Trade openness	NS	NS	-	-	NS	NS	-	-
	Total government revenue excluding grants and social contributions	+	+	+	+	+	+	+	+

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Demographics	Unemployment rate	NS	NS	-	-	NS	NS	-	-
	Age dependency ratio (% of working-age population)	NS	NS	+	+	+	NS	+	+
	Fertility rate	NS	NS	NS	NS	-	NS	-	-
	Prevalence of HIV, total (% of population ages 15-49)	-	-	-	-	NS	NS	-	-
	Child mortality rate	+	+	NS	NS	NS	NS	NS	NS
	Urban population	NS	NS	+	+	-	-	+	+
	Population density	NS	-	-	-	-	-	-	NS
	Gini index	+	+	+	+	+	NS	+	+
History and path dependency	Years since independence	+	+	+	+	+	+	+	+
	Former colony power: UK	NS	NS	NS	NS	NS	NS	NS	NS
	Former colony power: France	NS	NS	-	-	NS	NS	-	-
	Former colony power: Spain	NS	NS	NS	NS	+	+	+	NS

Table A 4: (continued)

			Global				DAC			
			IV-Tobit		FRM		IV-Tobit		FRM	
			Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Institutions	Democracy	Electoral democracy index	NS	NS	NS	NS	NS	NS	+	NS
		Quality of government	NS	NS	NS	-	NS	NS	NS	NS
	Political settlements	Party institutionalization index	NS	NS	+	+	NS	NS	+	+
		Military expenditure (% of GDP)	NS	NS	+	+	NS	NS	+	+
		Palma ratio (Top 10% / bottom 40%)	NS	NS	+	+	NS	+	+	+
	Judicial system	Compliance with judiciary	NS	NS	-	-	NS	NS	-	-
Ideas / Ideology		Right political orientation	NS	NS	NS	NS	+	+	+	+
		Centre political orientation	NS	NS	+	+	NS	NS	+	+
		Left political orientation	NS	NS	NS	NS	NS	NS	+	+
Shocks		Years in financial crisis L1	NS	NS	+	+	NS	NS	+	+
		Rain shock	NS	NS	-	-	NS	NS	-	-

IV-Tobit: Tobit model with endogenous regressors estimates based on log-log functional form. FRM: Fractional response model with an endogenous regressor estimates based on log functional form. L1=lagged one period. Full results are presented in Appendix. NS=Not significant effect. + stands for a positive effect. – stands for a negative effect.

Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Table A 5: Summary of estimated effects. Asia

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Foreign aid	Foreign aid (L1)	NS	NS	+	+	NS	NS	+	+
Donor influence	Number of year since introduction of ILO conventions	NS	NS	NS	NS	NS	NS	+	+
Policy diffusion	Average number of programmes in neighbouring countries	+	+	NS	NS	+	+	NS	NS
Economic conditions	Log GDP per capita in constant US$ (PPP)	+	+	+	+	+	+	+	+
	GDP growth (annual %)	+	+	NS	+	NS	NS	NS	+
	Total natural resources rent (%GDP)	NS	NS	+	+	NS	NS	+	+
	Trade openness	-	-	-	-	-	-	-	-
	Total government revenue excluding grants and social contributions	-	-	-	-	NS	NS	-	-

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Demographics	Unemployment rate	NS	NS	NS	NS	-	-	NS	NS
	Age dependency ratio (% of working-age population)	NS	NS	-	-	NS	NS	-	-
	Fertility rate	-	-	+	+	NS	NS	+	+
	Prevalence of HIV, total (% of population ages 15-49)	NS	NS	-	-	NS	NS	-	-
	Child mortality rate	NS	NS	-	-	NS	NS	-	-
	Urban population	NS	NS	-	-	NS	NS	-	-
	Population density	+	+	+	+	+	+	+	+
	Gini index	+	+	+	+	NS	NS	+	+
History and path dependency	Years since independence	NS	NS	-	-	NS	NS	-	-
	Former colony power: UK	NS	NS	NS	NS	NS	NS	NS	NS
	Former colony power: France	NS	NS	-	-	NS	NS	-	-
	Former colony power: Spain	NS	NS	-	-	NS	NS	-	-

Table A 5: (continued)

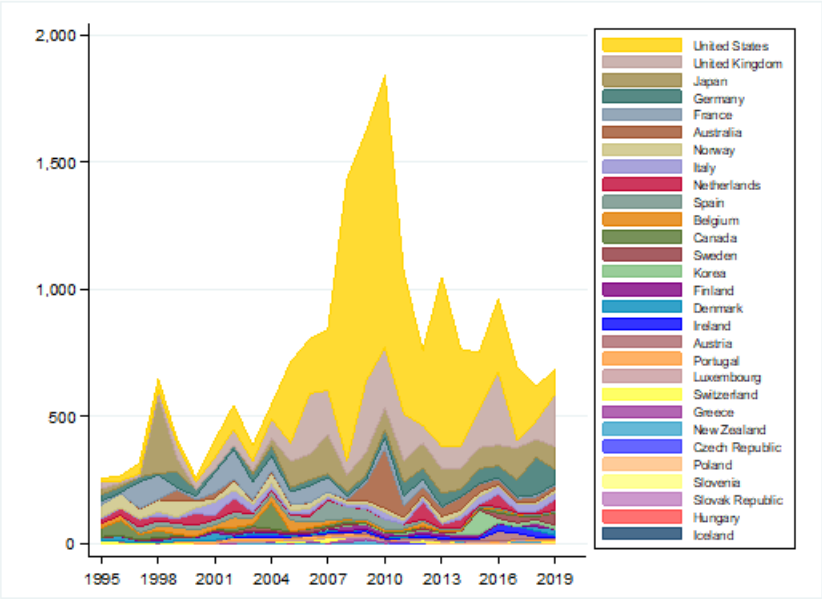
			Global				DAC			
			IV-Tobit		FRM		IV-Tobit		FRM	
			Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Institutions	Democracy	Electoral democracy index	NS	NS	-	-	NS	NS	-	-
		Quality of government	NS	NS	-	-	NS	NS	-	-
	Political settlements	Party institutionalization index	NS	NS	NS	NS	NS	NS	NS	NS
		Military expenditure (% of GDP)	NS	NS	+	+	NS	NS	+	+
		Palma ratio (Top 10% / bottom 40%)	NS	NS	+	+	NS	NS	+	+
	Judicial system	Compliance with judiciary	NS	NS	NS	NS	NS	NS	NS	NS
Ideas / Ideology		Right political orientation	NS	NS	-	-	NS	NS	-	-
		Centre political orientation	NS	NS	NS	NS	NS	NS	-	-

		Global				DAC			
		IV-Tobit		FRM		IV-Tobit		FRM	
		Narrow	Broad	Narrow	Broad	Narrow	Broad	Narrow	Broad
Shocks	Left political orientation	+	+	-	-	+	+	-	-
	Years in financial crisis L1	-	-	NS	NS	NS	NS	NS	NS
	Rain shock	NS	NS	-	-	NS	NS	-	-

IV-Tobit: Tobit model with endogenous regressors estimates based on log-log functional form. FRM: Fractional response model with an endogenous regressor estimates based on log functional form. L1=lagged one period. Full results are presented in Appendix. NS=Not significant effect. + stands for a positive effect. – stands for a negative effect.

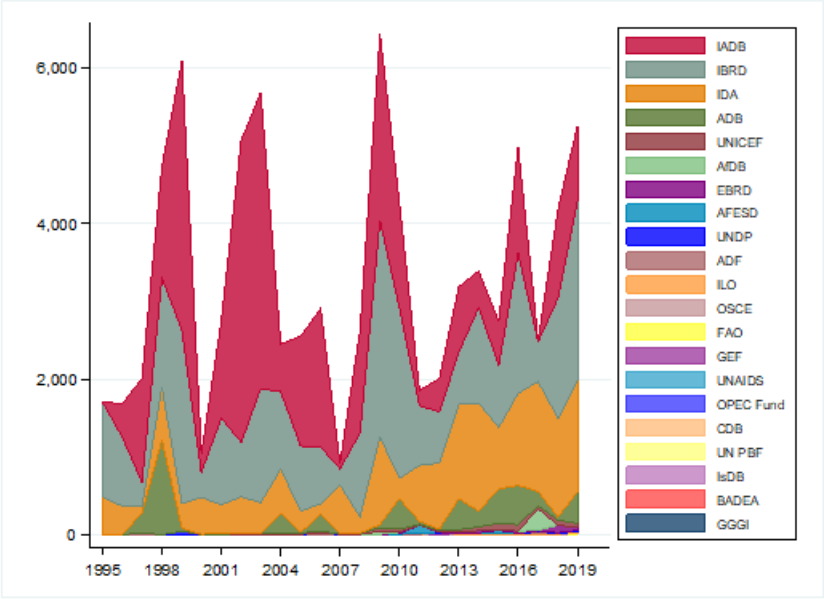
Source: Authors' calculations, based on SAPI database and OECD´s Creditor Reporting System.

Figure A 10: Total aid to social protection by DAC countries



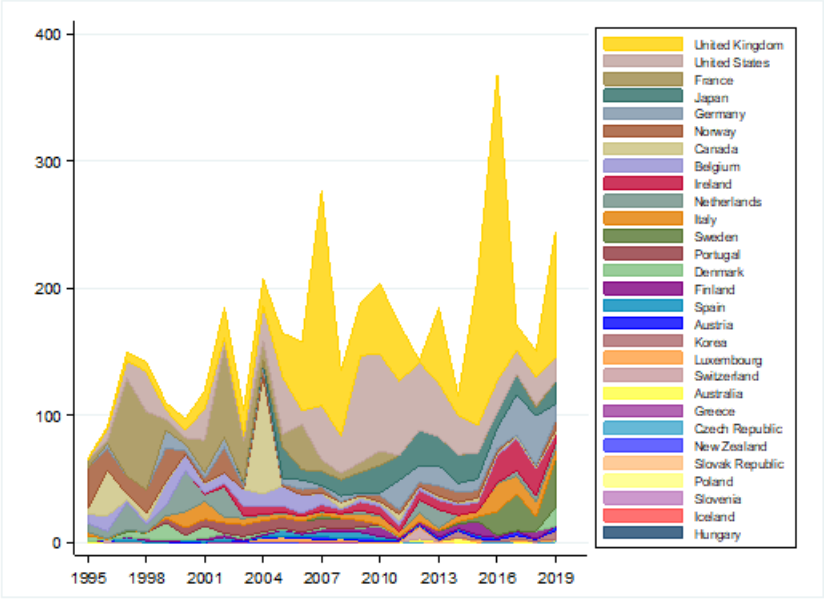
Note: Author´s calculations, based on OECD´s Creditor Reporting System. Narrow Def. includes donations received for social protection. Broad Def. includes donations received for social protection, employment creation, social mitigation of HIV/AIDS, labour rights and social dialogue. Commitments at constant prices in millions of US$. Narrow Definition.

Figure A 11: Total aid to social protection by multilateral organizations



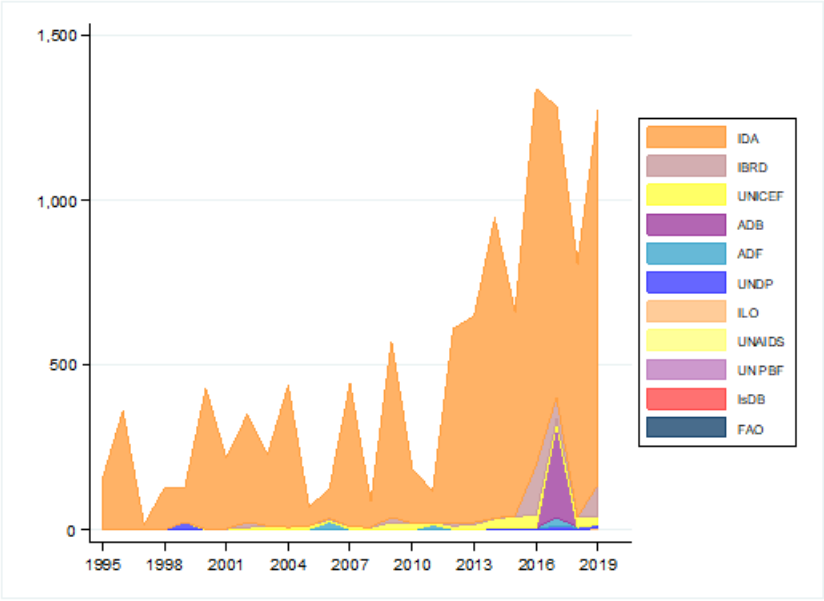
Note: Author´s calculations, based on OECD´s Creditor Reporting System. Narrow Def. includes donations received for social protection. Broad Def. includes donations received for social protection, employment creation, social mitigation of HIV/AIDS, labour rights and social dialogue. Commitments at constant prices in millions of US$. Narrow Definition.

Figure A 12: Total aid to social protection by DAC countries. Sub-Saharan Africa



Note: Author´s calculations, based on OECD´s Creditor Reporting System. Narrow Def. includes donations received for social protection. Broad Def. includes donations received for social protection, employment creation, social mitigation of HIV/AIDS, labour rights and social dialogue. Commitments at constant prices in millions of US$. Narrow Definition.

Figure A 13: Total aid to social protection by multilateral organizations. sub-Saharan Africa



Note: Author´s calculations, based on OECD´s Creditor Reporting System. Narrow Def. includes donations received for social protection. Broad Def. includes donations received for social protection, employment creation, social mitigation of HIV/AIDS, labour rights and social dialogue. Commitments at constant prices in millions of US$. Narrow Definition.

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