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Marcus Drometer

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Poschingerstr. 5, 81679 Munich, Germany

Telephone +49(0)89 9224 0, Telefax +49(0)89 985369, email ifo@ifo.de

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Abstract

This paper investigates the impact of foreign aid on the quality of institutions in recipient countries. Our identification strategy exploits the shift in US foreign policy due the attacks on the World Trade Center on September 11th, 2001 as a quasi-natural experiment. The associated change in strategic importance of certain countries is resembled in the pattern of foreign aid flows. We estimate the impact of US foreign aid on different measures of institutional quality in a cross-country panel data set of developing countries. Our results indicate that foreign aid impacts different dimension of a country's institutions: When focusing on the rule of law aid seems to have a detrimental effect. However, the tax burden imposed on the citizens in recipient countries seems to be reduced by aid payments. When looking at the general level of democratization, we cannot find any conclusive results.

JEL Code: H11, D72, F22

Keywords: Foreign aid, institutional quality, natural experiment

Marcus Drometer
ifo Institute – Leibniz Institute for
Economic Research
at the University of Munich
Poschingerstr. 5
81679 Munich, Germany
Phone: + 49 89 9224 1355
drometer@ifo.de

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1 Introduction

The effectiveness of foreign aid is highly controversial. Widespread instances of inefficient usage and waste of resources have alerted donor organizations like the World Bank to re-think their foreign aid management.⁰ Weak institutional frameworks in recipient countries, especially corruption and a lack of political accountability, are most frequently cited as a reason for the ineffectiveness of aid.¹ However, it is not thoroughly scrutinized which impact foreign aid has on the quality of institutions in recipient countries itself. Among others, foreign aid might undermine the link between the government's performance and the political outcomes thereby prolonging the time incompetent politicians stay in office.

This paper investigates whether foreign aid undermines the quality of institutions in recipient countries by weakening accountability and encouraging rent-seeking. The identification of this relationship is obstructed by the evident endogeneity of foreign aid. Therefore, our identification strategy exploits the shift in US foreign policy due the attacks on the World Trade Center on September, 11th 2001 as a quasi-natural experiment. The associated change in strategic importance of certain groups of countries is resembled in the pattern of foreign aid flows as shown in the following. We examine the impact of US foreign aid on different measures of institutional quality in a cross-country panel data set of developing countries. Contrary to most of the previous literature, we find that aid payments seem to promote governance efficiency.

The impact of foreign aid on the quality of institutions in recipient countries is far from being obvious. On the one hand, foreign aid might undermine political accountability by providing governments in developing countries with funds that are independent (or even negatively correlated) with their performance in office. On the other hand, foreign aid might be used for valuable investments in education and health and thereby foster the stability of a political system or improve the quality of government employees. From an empirical perspective, the identification of the effect of interest is hindered by several obvious endogeneity problems: Corrupt and incompetent governments are a potential reason for weak economic conditions which induce foreign aid payments. At the same time many aid programs are conditional on a satisfying institutional framework in the recipient country given negative experiences in the past.² Therefore, our identification strategy exploits the fact that strategic concerns are an important determinant of foreign aid flows as it is well known since Alesina and Dollar (2000). Kuziemko and Werker (2006), for example, show that the pattern of foreign aid payments can partly be explained by temporary members of the UN Security Council trading their votes for increases in US foreign aid. In a similar vein, Dreher, Sturm, and Vreeland (2009) find

⁰C.f. World Bank (1998).

¹See e.g. Svensson (1999), Burnside and Dollar (2000) and Collier and Dollar (2002).

²Among other studies, Svensson (1999), Burnside and Dollar (2000) and Collier and Dollar (2002) conclude that only recipient countries with appropriate policies and institutions experience of positive impact of aid on growth. These findings and the unsatisfying results of the conditionality strategy led the World Bank to focus on selectivity, i.e. to ex ante select countries where a positive impact of aid is likely (see e.g. Collier (1997) and World Bank (1998)).

evidence that temporary members of the UN Security Council receive favorable treatment from the World Bank. Since the variation in foreign aid which is due to strategic considerations is determined by factors like the present geo-political situation or historical cleavages, it can reasonably be regarded as exogenous to the institutional quality of countries. This is particularly the case for changes in strategic considerations which are due to singular events of history like the attacks on the World Trade Center on September, 11th 2001 which we are focusing on. As shown in the following the shift in US politics is resembled in changes of the pattern of US foreign aid flows. In the decade after 2001 countries which are located closer to Afghanistan as well as countries with a higher percentage of Muslim population received considerably more foreign aid from the US than in the 1990s. We exploit this policy shift to build two related instrument. These are interactions of an indicator for the time period after 2001 with either the distance of a country's capital from Kabul, Afghanistan, or the share of each country's muslim population in 2000. The underlying motivation is evident: these countries gained political attention since 2001 and obtained significantly more aid than during the previous before.

The literature on the impact of foreign aid on political accountability is still limited. Knack (2001) finds that aid significantly reduces a country's ranking in the International Country Risk Guide (ICRG). In this cross-country study a mixture of different economic and political variables is used as an instrument for foreign aid. Our paper differs from Knack (2001) in two respects: Firstly, we propose an identification strategy which is exogenous to the institutional quality in recipient countries. Secondly, we use a different indicator of the quality of governance and focus on a more recent time period. Ahmed (2010) analyzes the influence of remittances by private households on a country's level of corruption. For identification, the author exploits the importance of fluctuations in the oil price for remittances to muslim countries. The results indicate that private remittances allow authoritarian regimes to redirect government resources away from public expenditures like health to patronage purposes thereby increasing corruption considerably. Among the major theoretical contributions are Svensson (2000), Cohen and Werker (2007) and Casamatta and Vellutini (2008). Svensson (2000) analyzes the relationship between corruption and foreign aid in a rent-seeking model and emphasizes that the mere expectation of aid may suffice to increase rent-seeking. Cohen and Werker (2007) scrutinize the impact of foreign aid on disaster prevention by a national government. In their model the probability of a shock is exogenous and the government can only influence the shock's impact by preventive and palliative spending. The crucial issue in their analysis remains whether these two means are substitutes or complements. Casamatta and Vellutini (2008) employ a tactical redistribution model where the politicians are both interested in social welfare and targeted transfers. In their analysis the impact of foreign aid on the quality of governance in the recipient country depends on the value of the elasticity of the marginal utility of consumption.

The paper is organized as follows: Section 2 reviews the current state of the debate of the linkage between foreign aid and the quality of governance. In section 3 we specify our baseline estimation,

discuss our identification strategy and present the data employed in our study. 4 presents our results and reports a number of robustness checks. Section 5 concludes with an outlook on possible future research.

2 Foreign aid and quality of governance

3 Empirical Analysis

3.1 Baseline estimation

We test empirically whether foreign aid undermines the quality of institutions in recipient countries by estimating variations of the following regression equation in a sample of aid recipient countries:

$$IQ_{it} = \alpha \log PCODA_{it} + \beta X_{it} + \theta_i + e_{it} \quad (1)$$

where IQ_{it} measures the institutional quality of a country i in year t . Our analysis relies on institutional indices from Freedom House and the Polity IV project which are described in detail in the following section. $\log PCODA_{it}$ is the logarithm of official development aid per capita received by country i and year t . Here our study mainly focuses on US aid. X_{it} is a set of time-varying control variables. The control variables account for the possibility that changes in fundamental economic and social variables like population and per capita income growth influence our results. For example, it might be that a country experiences an increase in income during the time period considered, e.g. due to the discovery of natural resources, changes of the terms of trades etc., which triggers a reduction in foreign aid. θ_i are country fixed effects which account for unobservable time-invariant country specific characteristics that might explain accountability.³ Finally, e_{it} denotes a residual.

3.2 Identification strategy

The coefficient of interest in our structural equation is α which captures the impact of foreign aid payments on the quality of institutions. As a baseline we report simple OLS estimates of different version of equation (1). However, a regression of a measure of institutional quality on the amount of development aid and standard control variables is likely to suffer from endogeneity problems. Historical and social characteristics of a country might jointly determine both measures. Equally, bad governance might lead to more need and hence higher aid payments. We employ country fixed effects to account for all time-constant determinants. Moreover, our identification strategy exploits the fact

³The country fixed effects account for observable country characteristics like geography, legal origin, colonial heritage which are discussed in the literature on cross-country differences in development.

that international donor organizations provide foreign aid for different reasons. Although donors often have altruistic motivations and intend to help the vulnerable citizens in developing countries, foreign aid is also used to foster strategic goals.⁴ Recent studies show that strategic concerns are empirically relevant determinants of the pattern of foreign aid flows. Kuziemko and Werker (2006), for example, study whether the ten temporary members of the UN Security Council are more likely to obtain US foreign aid than other countries during their two-year term. Their findings indicate that a country receives 59 percent more aid from the United States and 8 percent more aid from the UN when it rotates onto the council. According to these authors, this pattern can be explained by the temporary members trading their votes for the payment of foreign aid.⁵

As the strategic considerations underlying the pattern of foreign aid flows are determined by exogenous factors like the present geo-political situation or historical cleavages, it is reasonable to exploit this variation to obtain an estimate of the impact of foreign aid on political accountability in recipient countries. In particular, we exploit changes in US politics induced by the attacks on the World Trade Center on September, 11th 2001.⁶ As shown in the following, the shift of the focus of US foreign policy is resembled in the pattern of foreign aid flows. In the decade after 2001 countries which are located closer to Afghanistan as well as countries with a higher percentage of Muslim population received considerably more foreign aid from the US than in the 1990s. This allows to set up two related instruments: The first, DISTANCE, is the interaction term of a post-2001 dummy variable and the distance of a country's capital from Kabul, Afghanistan. Underlying is the idea that countries closer to the core of the "war on terror" considerably gained strategic importance and therefore obtained higher foreign aid flows (excluding military support) from the US. For example, these countries became more attractive for political cooperation or for military bases. The second instrument, MUSLIM, is the interaction term of a post-2001 dummy variable and the share of a country's muslim population in 2000. The underlying motivation for this instrument is analogous: countries with a higher share of muslim population significantly gained political attention after 2001 and therefore received more aid than during the decade before. Here the policy change is rather due to an increased awareness of these countries and the potential terrorist threats associated with muslim groups. As both instruments vary across time (i.e., the shift from the period 1990 to 2001 to the period 2001 to 2009) and across countries (i.e., distance to Kabul and share of muslim population) our estimation approach is able to identify both within and across country variation in institutional quality. As shown ins section 4 our instruments show a strong partial correlation with the potentially endogenous explanatory variable foreign aid.

⁴An explicit formulation of donor's preferences can be found in Knack and Rahman (2007).

⁵Alesina and Dollar (2000) were among the first to provide evidence that strategic considerations are crucial in determining foreign aid flows. Dreher, Sturm, and Vreeland (2009) find evidence that temporary members of the UN Security Council receive favorable treatment from the World Bank.

⁶At first glance the voting behavior in UN committees seems to be an appropriate identifier of foreign aid. However, drastic changes of the UN voting behavior following September 11th render it doubtful as an instrument for more recent periods of time. Similarly, Strömberg (2007) notes that voting patterns do not explain disaster relief flows for the post-Cold War period.

Even though our instruments are based on exogenous changes in the pattern of foreign aid flows, one might be concerned that the aftermath of September 11th had a direct impact on the political system of the countries directly affected by US interventions. Therefore, we generally exclude all states directly involved in the subsequent regional conflict from our sample.⁷ Section 4.3 discusses a number of related issues in more detail.

Based on the instrumentation described above, the first-stage regression takes the following form

$$\log PCODA_{it} = a + b \text{Distance}_i \times \text{Post2001}_t + cX_{it} + \tau_i + e_t + u_{it} \quad (2)$$

where $\log PCODA_{it}$ is the logarithm of the amount of official US development aid per capita received by country i and year t . X_{it} is a set of time-varying control variables (e.g., GDP and population growth). τ_i are country fixed effects capturing unobservable time-invariant country specific characteristics. Finally, u_{it} denotes a residual.

3.3 Data

This section gives a brief overview of the main variables and their sources underlying our analysis. A detailed summary statistics can be found in Table 2. Our panel comprises 134 countries over 20 years. All countries are classified as least developed, other low income or lower middle income countries on the OECD's DAC list of aid recipients as at 1 January 2000 and are listed in Table 1.⁸ Given the idea of using changes due to the attack on the World Trade Center of 2001, we focus on the time period from 1990 to 2009.

The quality of governance can be measured by a number of subjective indicators. Our study mainly draws on the world country ratings from Freedom House and the regime character according to the Polity IV project.⁹ The Freedom House survey provides an annual assessment of two categories of freedom: an index of a country's civil liberties and an index of political rights. The political rights ratings refer to the functioning of political institutions comprising evaluations of the electoral process, political pluralism and participation. The civil liberties ratings measure individual freedom and are based on an evaluation of four subcategories: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. We use the simple average of the two indexes in our analysis. Originally the scores range from 0 to 7, with higher scores denoting lower levels of freedom. To align the indicator with the others used in our study, we rescale it to a range from 0 to 1 and such that higher scores imply more freedom. The Polity IV Project codes authority characteristics of states for the purpose of comparative analysis. We use the revised version

⁷The countries excluded are: Afghanistan, Iraq, Iran and Pakistan.

⁸See www.oecd.org/dac/stats/daclist

⁹Given the choice of our instruments, we depend on an indicator that already covers a relevant number of countries in the 1990s. This precludes the use of, for example, the World Governance Indicators by Kaufmann, Kraay, and Mastruzzi (2007).

Table 1: Sample of countries

Country name				
Albania	Comoros	Honduras	Mozambique	Sudan
Algeria	Congo, Dem. Rep.	India	Namibia	Suriname
Angola	Congo, Republic of	Indonesia	Nepal	Swaziland
Antigua and Barbuda	Costa Rica	Iran	Nicaragua	Syria
Argentina	Cote d'Ivoire	Jamaica	Niger	Tajikistan
Armenia	Croatia	Jordan	Nigeria	Tanzania
Azerbaijan	Cuba	Kenya	Oman	Thailand
Bangladesh	Djibouti	Kyrgyzstan	Palau	Timor-Leste
Barbados	Dominica	Laos	Panama	Togo
Belarus	Dominican Rep.	Lebanon	Papua New Guinea	Trinidad and Tobago
Belize	Ecuador	Lesotho	Paraguay	Tunisia
Benin	Egypt	Liberia	Peru	Turkey
Bhutan	El Salvador	Libya	Philippines	Turkmenistan
Bolivia	Equatorial Guinea	Madagascar	Rwanda	Uganda
Bosnia and Herzegovina	Eritrea	Malawi	Samoa	Ukraine
Botswana	Ethiopia	Malaysia	Sao Tome and Principe	Uruguay
Brazil	Fiji	Maldives	Senegal	Uzbekistan
Burkina Faso	Gabon	Mali	Serbia	Vanuatu
Burundi	Gambia, The	Marshall Islands	Seychelles	Venezuela
Cambodia	Georgia	Mauritania	Sierra Leone	Vietnam
Cameroon	Ghana	Mauritius	Solomon Islands	Yemen
Cape Verde	Grenada	Mexico	Somalia	Zambia
Central African Rep.	Guatemala	Micronesia, Fed. Sts.	South Africa	Zimbabwe
Chad	Guinea	Moldova	Sri Lanka	
Chile	Guinea-Bissau	Mongolia	St. Kitts and Nevis	
China	Guyana	Montenegro	St. Lucia	
Colombia	Haiti	Morocco	St. Vincent and Grenad.	

of the combined polity score, a measure of institutionalized democracy / autocracy. Effectively it measures the functioning of democratic institutions with the following components: competitiveness and openness of executive recruitment, constraints on the chief executive and participation in politics. The cores, originally ranging from -10 to 10, were rescaled to 0 to 1.

The data for the key explanatory variable, foreign aid, stem from the OECD's International Development Statistics. These flows comprise all official financing provided by state and local governments where the promotion of the economic development and welfare of developing countries is the main objective (including concessional loans with a grant element of at least 25 percent). Military aid and support for peacekeeping are excluded.¹⁰ We use annual flows from the United States at 2005 prices. For the construction of our instrument we use the great circle distance between capital cities in the kilometers as report by Gleditsch and Ward (2001). For the same purpose we draw on data on the muslim population share of countries by the Pew Research Center (2011). We use the cross-country data available for 1990 and 2010 to calculate the average as an estimate of the values for 2000. For our robustness checks the total number of fatalities due to terrorist acts are obtained from the National Consortium for the Study of Terrorism and Responses to Terrorism (START). To be included in the Global Terrorism Database an incident must fulfil at least two of the following three criteria: aimed at attaining a political, economic, religious, or social goals; intention to coerce, intimidate, or convey some other message to a larger audience than the immediate victims; being outside the context of legitimate warfare activities. Finally, we gathered control variables for each country from Heston, Summers, and Aten (2011). These include total population and per capita GDP for each country

¹⁰See OECD (2008).

and year. To account for the different base years of the foreign aid, we deflated the income data accordingly.

Table 2: Summary statistics

Variable	Mean	Std. Dev.	Min	Max
Freedom House	0.51	0.30	0	1
Polity IV	0.58	0.31	0	1
Per capita ODA from US (in 1,000,000 dollar)	64.55	192.51	-590.30	4762.05
Annual GDP growth rate (percentage)	0.023	0.083	-0.62	1.22
Annual population growth rate (percentage)	0.019	0.025	-0.31	0.57
Terrorist killings	33.9	132.4	0	1571
Share of muslim population (percentage)	0.28	0.38	0.0005	0.99
Distance to Kabul, Afghanistan (in 1,000 km)	7.79	4.16	0.44	16.3

4 Results

4.1 Baseline results

The baseline OLS results are presented in table 3. In column (1) we regress our first measure of institutional quality, the Freedom House rating, on (the natural logarithm of) annual foreign aid receipts. A standard set of covariates used in existing studies like Knack (2001) to explain cross-country differences in the quality of institutions is added in column (2). Like in all other cases this regression includes country fixed effects to control for (unobserved) heterogeneity that is constant over time. In both specifications, foreign aid has a positive and highly statistically significant effect on the quality of governance. An increase in foreign aid by one standard deviation increases governance by almost 0.09 points. The control variable exhibited the expected sign and are highly significant. A standard deviation higher income and population growth lead to improvement of governance by 0.079 and 0.056 points. Columns (3) to (4) repeat the before exercise with the other measure of institutional quality, the Polity IV indicator. The corresponding results including the effect of income growth are strikingly similar. Moreover, the coefficient for foreign aid is significant at the one percent level. Thus OLS suggests that there is a statistically relevant positive impact of foreign aid on institutional quality with considerable size. However, the estimated effect might be artificially created and, for example, due to the conditioning of foreign aid on good governance in recipient countries. Therefore, we continue with the instrumental variable estimations in the following.

Table 3: Impact of foreign aid on institutions, OLS

Dependent variable:	Freedom House		Polity IV	
	(1)	(2)	(3)	(4)
Per capita ODA (\log_e)	0.011 ** (0.051)	0.011 ** (0.051)	0.019 *** (0.006)	0.018 *** (0.006)
Annual GDP growth	-	0.159 *** (0.042)	-	0.146 *** (0.042)
Annual population growth	-	0.375 ** (0.166)	-	-0.090 (0.136)
Country fixed effects	yes	yes	yes	yes
Number of observations	2051	2051	1803	1794
R-squared	0.85	0.85	0.76	0.76

Estimation via OLS including a constant (coefficient not reported). Robust standard errors, clustered by country are reported in parentheses. Sample entails observations for developing countries as defined in section 3.3 and listed in Table 1 from 1990 to 2009. Significance levels: *** 1%; ** 5%; * 10%.

4.2 Instrumental variable results

First stage

Table 4 reports the results of the first stage regressions capturing the impact of the change in foreign policy induced by the events of September 11th on US foreign aid flows. The regressions include country fixed effects and the same control variables like the main estimation. Both potential instrumental variables exhibit a statistically highly significant impact on US foreign aid flows. The significance level decreases only slightly remaining at the upper end of the five percent area when including a time trend.

Table 4: Impact of changes in US foreign policy induced by September 11th on foreign aid (Muslim population and capital distance to Kabul instruments), First stage of 2SLS

Dependent variable: US Foreign Aid (\log_e)	(1)	(2)	(3)	(4)
	Muslim population after 2001	0.716 *** (0.236)	0.609 ** 0.258	-
Capital distance to Kabul after 2001	-	-	1.038 *** (0.41)	0.915 ** (0.354)
Annual GDP growth	0.149 (0.306)	0.110 (0.302)	0.111 (0.306)	0.079 (0.304)
Annual population growth	-1.312 (1.118)	-1.237 (1.088)	-1.404 (1.094)	-1.342 (1.080)
Time trend	-	0.009 (0.011)	-	0.007 (0.011)
Country fixed effects	yes	yes	yes	yes
Number of observations	2501	2501	2024	2024
R-squared	0.76	0.76	0.76	0.76

Estimation via OLS including a constant (coefficient not reported). Robust standard errors, clustered by country are reported in parentheses. Sample entails observations for developing countries as defined in section 3.3 and listed in Table 1 from 1990 to 2009. Significance levels: *** 1%; ** 5%; * 10%.

2nd stage

We regress the indicators for institutional quality on US development aid instrumented as outlined above and displayed in equation (2). The first series of regressions draws on the instrument based on muslim population share in 2000, whereas the instrument based on the distance of a capital to Kabul is used in the second series of regressions. The panel comprises (depending on the governance measure employed) up to 131 countries with observations between 1990 and 2010. We always include country fixed effects and estimate robust standard errors clustered by country.

In the first four columns of table 5 the dependent variable is the Freedom House Indicator. Column (1) and (2) display the specification based on the muslim population share instrument. Increases in US foreign aid improves governance at a 5 % significance level. The estimated effects imply that an increase in foreign aid by one standard deviation improves the Freedom House score by 0.78 points which corresponds to roughly half a standard deviation. As evident from column (3) and (4) effect remains robust and is only a bit smaller when employing the capital distance instrument. Columns (5) to (8) display the results when the Polity IV indicator is used as a measure of institutional quality. Again, the estimates of first two columns are based on the muslim population share instrument and the latter two on the capital distance instrument. As before, there is a considerable positive effect of foreign aid on institutional quality that is significant at the 5 % significance level. Since we have scaled both indicator to the same scale, the results based on the Polity IV indicator are comparable to those based on the Freedom House ranking. For all specifications table 5 indicates that the addition of time-varying controls does not affect our estimates of the coefficient of interest. Equally, the F -Statistic of the first stage regression always remains comfortably above the critical value for avoiding the problem of weak instruments.

The point estimate of the coefficient of interest are quite stable across the different specifications suggesting that there is a positive impact of foreign aid on the quality of governance. This is in contrast to previous studies like Knack (2001). However, Knack restricts attention to three dimensions of the ICRG which are government stability, law and order and quality of the bureaucracy. These categories rather refer to making business and hence capture a different dimension of institutional quality than we do.

4.3 Robustness

Our identification strategy is based on a change in foreign policy induced by a singular event. Therefore, the associated variation in the pattern of foreign aid flows is very likely to be exogenous to the quality of institutions in recipient countries. Nevertheless, one might be concerned that countries whose capital is closer to Kabul and which have a higher percentage of muslim population developed differently than other countries after 2001 because of the attacks of September 11th. We have already tackled this concern by excluding all states directly involved in the subsequent regional conflicts from our sample. However, we have not controlled for further factors in the remaining countries that might drive this relationship. For example, the rise of terrorism might have directly affected other countries' political systems. Equally, the influence of US politics and its pressure for reforms might have increased precisely in those states where the level of terrorist activity is high. Finally, countries in the

Table 5: Impact of foreign aid on institutions: Freedom House and Polity, Second stage of 2SLS

Dependent variable:	Freedom House			Polity IV				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Per capita ODA (\log_e)	0.118** (0.049)	0.117** (0.049)	0.069** (0.031)	0.068** (0.030)	0.200*** (0.073)	0.196*** (0.075)	0.099*** (0.030)	0.092*** (0.032)
Annual GDP growth	-	0.124** (0.059)	-	0.140*** (0.049)	-	0.082 (0.076)	-	0.120** (0.051)
Annual population growth	-	0.527** (0.223)	-	0.467** (0.190)	-	0.179 (0.257)	-	0.021 (0.154)
IV's: Muslim population share	yes	yes	no	no	yes	yes	no	no
Distance of capital to Kabul	no	no	yes	yes	no	no	yes	yes
Cragg-Donald Wald F statistic	49.7	47.4	56.7	60.1	49.9	47.4	70.6	67.8
Kleibergen-Paap rk Wald F statistic	9.5	9.2	9.3	9.4	9.0	8.8	9.3	9.2
Country fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
Number of observations	2060	2050	2033	2023	1803	1794	1803	1794

Estimation via 2SLS including a constant (coefficient not reported). Robust standard errors, clustered by country are reported in parentheses. Sample entails observations for developing countries as defined in section 3.3 and listed in Table 1 from 1990 to 2009. Significance levels: *** 1%; ** 5%; * 10%.

focus of US politics and terrorism might have received large sums of military support that might be associated with institutional quality (e.g., corruption). These relationships would constitute a direct link between our instrument and the dependent variable thus causing a violation of the exclusion restrictions. Therefore, we directly control for the level of terrorism in recipient countries by including the number of fatalities due to terrorist acts. Table 6 displays the corresponding results where we additionally include a measure of terrorism, the number of people killed in terrorist acts. Most importantly, the inclusion of the additional control variable does not have any substantial impact on our main result which supports the validity of our instruments. The estimate of the terrorism variable is negative and highly significant in most cases. Apparently, the direct negative impact of terrorism on institutional strictly outweighs the pressure from abroad to improve the quality of governance in a country.

Table 6: Robustness checks

Dependent variable:	Freedom House		Polity IV		
	(1)	(2)	(3)	(4)	(5)
Per capita ODA (\log_e)	0.118** (0.049)	0.067** (0.030)	0.197*** (0.074)	0.091*** (0.031)	0.087*** (0.033)
Annual GDP growth	0.109* (0.060)	0.127** (0.050)	0.070 (0.077)	0.107** (0.050)	0.130** (0.051)
Annual population growth	0.501** (0.218)	0.438** (0.186)	0.156 (0.247)	-0.004 (0.146)	0.492** (0.202)
Terrorism killings	-0.0001** (0.00005)	-0.0001*** (0.00003)	-0.0001 (0.0001)	-0.0001* (0.00006)	-0.013*** (0.004)
IV's: Muslim population share	yes	no	yes	no	yes
Distance of capital to Kabul	no	yes	no	yes	yes
Cragg-Donald Wald F statistic	47.4	56.7	47.4	67.7	33.0
Kleibergen-Paap rk Wald F statistic	9.3	9.3	8.8	9.3	6.7
Hansen J statistic	-	-	-	-	2.03
Country fixed effects	yes	yes	yes	yes	yes
Number of observations	2050	2023	1794	1794	2023

Estimation via 2SLS including a constant (coefficient not reported). Robust standard errors, clustered by country are reported in parentheses. Sample entails observations for developing countries as defined in section 3.3 and listed in Table 1 from 1990 to 2009. Significance levels: ** 5%; * 10%.

The availability of two instruments for our endogenous variable foreign aid flows allows us to test the overidentifying restrictions in order to check whether both instruments have an independent explanatory value. Column (5) of table 6 presents a specification which includes both instruments at the same time. The reported p -values for the Hansen test indicate for all specifications that the overidentifying restriction is not rejected at any reasonable level.

5 Conclusion

This paper studies whether foreign emergency aid affects the quality of institutions in developing countries. We find foreign aid payments have a considerable positive impact on institutional quality as measured by the Freedom House ranking and the Polity IV indicator.

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