European Research Centre for Anti-Corruption and State-Building

ERCAS Working Papers

Working Paper No. 47

# EU Aid and Quality of Governance

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January 2016
www.againstcorruption.eu

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**Abstract**

Using a panel dataset on 103 developing countries, this paper empirically analyzes the impact of the European aid flows on quality of governance in aid recipient countries. The analysis employs aggregated Official Development Data as well as disaggregated project level data. The results show that while bilateral aid from the largest European donors does not show any impact, multilateral financial assistance from the EU Institutions leads to an improvement in governance indicators. These findings thus suggest that European development assistance can help to promote good governance if aid is allocated at the EU supranational level rather than at the national level of the member states.

# 1 Introduction

The EU Institutions are collectively the largest multilateral donor of foreign aid and the second largest donor overall behind the United States providing development assistance to every region in the world. In 2012, the EU Institutions allocated roughly 19 Billion USD on Official Development Assistance (ODA). Together with the EU Development Assistance Committee (DAC) member states, aid from the EU Institutions accounted for almost 60 % of the total ODA word wide. Moreover, 10 % of the total ODA from the EU Institutions was allocated to the government and civil society sector that includes, among other areas, development of public sector and administrative management, development of anti-corruption organizations and institutions, legal and judicial development. Only the transport and storage sector (12.5 %) as well as the banking and financial services sector (11.2 %) received slightly more contributions in 2012. Additionally counting the funds from the EU DAC member states, the government and civil society sector becomes the top area of European development activities with a total amount of funds of roughly 7.75 billions USD (11.7 % of total European ODA).[1]

The substantial material funds devoted to the promotion of good governance and civil society reflect the relevance of this area in the European development policy of recent times. As noted by Hout (2013, p.1), driven by the consensus among practitioners and academics about the importance of governance quality for development, European aid “has been subject to the governance turn of the late 1990s”. Since then, good governance has been assigned to serve as a fundamental principle and its promotion has become a key priority in designing European development policy (see Hout 2013 and official documents of the EU institutions cited therein).[2] In practical terms, new development instruments were created that use the principles of positive conditionality for allocation of financial assistance. For example, since 2008 the European Development Fund financing the development assistance to the group of countries in Africa, Caribbean and Pacic (ACP) has included an instrument called ”governance incentive tranche”. Within this mechanism, additional funds can be allocated to countries that adopt or credibly commit themselves to governance reforms. Similarly, the European Neighborhood Policy Instrument (ENPI), which governs a group of countries in the Middle East and North Africa as well as some former Soviet republics, contains the specific “governance facility” instrument, which was introduced in 2007, to reward

[1] The figures stem from the EU AID Explorer website, an official web tool for aid information operated by the European Commission. https://euaidexplorer.jrc.ec.europa.eu

[2] See also Booth (2011) for an overall discussion about the role of institutions in designing development policy in recent years.

countries with progress in good governance reforms. The European Commission has identified institutional indicators on democratic accountability, rule of law, control of corruption, government effectiveness, economic governance, internal and external security as key factors for evaluation and monitoring of countries' reforms in this area (Hout 2013).

Despite its relatively large importance and the numerous empirical works on foreign aid, quantitative research on the effectiveness of the European aid is, however, quite rare, let alone studies that link it to governance outcomes. This paper aims to fill this gap by empirically testing the impact of aid flows from the EU on governance measures thereby distinguishing between multilateral flows, i.e. aid from the EU Institutions, and bilateral flows, i.e. aid from the EU member states. There are two reasons for an explicit differentiation between bilateral and multilateral aid flows. First, empirical literature on the effectiveness of foreign aid generally suggests that multilateral aid is more likely to reach its development goals although even here the evidence is far from reaching a consensus. Second and related, it is often argued that bilateral assistance is primely guided by the strategic interests of the donor countries rather than the underlying objectives of reducing poverty and promoting development. Summarizing related evidence, Tierney et al. (2011, p. 1894), e.g., write: "Many [national] governments ... apparently seek to relieve poverty only after, or as secondary consequence of, first using aid to cement alliances, bolster trade partnerships, or buy diplomatic cooperations in areas like the United Nations".[3]

Testing the impact of the European aid flows on the quality of governance, I use a panel dataset of about 100 developing countries, which have been net recipients of both bilateral and multilateral European aid, covering a period between 1996 and 2011. To measure the quality of governance, I rely on the World Governance Indicators (WGI) provided by the World Bank (2014a). These indicators capture most of the institutional dimensions mentioned above which the European Commission, but also other organizations (e.g., USAID) use to evaluate the governance performance in aid recipient countries. Aid flows are operationalized as net Official Development Assistance (ODA) using the official OECD DAC statistics. In particular, I use total net ODA from the EU Institutions to capture multilateral aid, and the sum of the total aid from the three largest European donor countries, namely France, Germany and the United Kingdom, to capture European bilateral aid flows. I also use more disaggre-

[3]Similarly, Wright and Winters (2010) argue that donors generally do not provide assistance only guided by the recipient-country needs but also for their strategic reasons. However, they also point out that there are differences even within bilateral donors with some countries behaving less strategically, and, especially, over time with some recent evidence suggesting that donors respond to local governance characteristics.

gated project-level data on aid funds that have been allocated to the development of governance and the civil society sector again distinguishing between bilateral and multilateral flows. I employ the system-GMM (Generalized Method of Moments) dynamic panel estimator that has been proposed by Arellano and Bover (1995) and Blundell and Bond (1998) to deal with the potential problem of endogeneity of aid flows. Additionally, this method allows to account for time persistence of governance measures by including their values from previous periods as determinants of their current realization.

All estimation models deliver a consistent picture. For an identical data sample, multilateral aid flows from the EU lead to an improvement of quality of governance whereas aid from the European national governments does not show any impact. These findings also hold with disaggregated project-level data implying that the effectiveness of European aid results from its source rather than from its sectoral allocation. The results also suggest that countries with relatively poor quality of governance, e.g. like those in the ACP region, tend to benefit relatively stronger from the multilateral aid compared to other regions. These findings thus support an optimistic view on the effectiveness of the European external financial assistance. It can help to promote good governance. However, they also verify the notion that this goal is more likely to be achieved if aid is allocated at the EU supranational level rather than at the national level of the member states.

Literature on the effectiveness of aid is very comprehensive and strongly debated. By nature, its substantial part focuses on the direct link between aid and economic development. Reviewing most of the studies of the last two decades, Tierney et al. (2011) and Wright and Winters (2010) similarly identify three different strands of evidence in this context: i) aid unconditionally leads to economic growth; ii) aid does not show any positive impact on economic growth; iii) the impact of aid is positive conditional on other mainly governance and political factors. The reasons for these mixed evidences and for the failure to establish a more clear and consensual view on the effectiveness of foreign aid mostly result from a variety of methodological approaches and measurements. For example, one of the main methodological challenges in cross national empirical studies is the potential endogeneity of foreign aid. In addressing it, most of the related works employ various instrumental variables which include geographical, political, and geo-strategical factors. As discussed in Wright and Winters (2010), however, these instruments often do not meet the exclusion criteria implying that their exogeneity to economic growth can not be ruled out. Another problem with evaluating aid effectiveness is the employment of over-aggregated and incomplete data. As mentioned above, the impact of multilateral aid might be different from that of

bilateral aid; sector-level data may contain more specific information; and same data but from various sources might differ too. All these challenges are also relevant for my research question. Employing a dynamic panel estimator, I do not rely on external instruments. At the same time I am also aware of the potential limitations associated with this approach, which are comprehensively discussed, e.g. , in Roodman (2009 a,b), and especially the problem of instrument proliferation. I address these with robustness checks of the main findings. Moreover, I employ both aggregated and disaggregated aid data thereby always distinguishing between multilateral and bilateral flows and relying on the same source for the same type of aid.

An increasing number of studies investigates the effectiveness of aid in governance and institution building nexus. For example, Aronow et al. (2014) show that foreign aid positively influences the degree of human rights protection and the level of democracy in recipient countries, although these effects are not persistent over time and vanish after a certain period that follows the increase in aid. Similarly, Kersting and Kilby (2014) demonstrate a positive impact of foreign aid on democratization arguing that this relationship holds in the long and in the short run. Although, democratic rights, being an integral element of good governance, certainly play an important role in formulating development objectives, the focus of this paper is on socio-economic institutions. In this context, the most related to this paper is the study by Busse and Gröning (2009) who also analyze the impact of foreign aid on governance dimensions like corruption, bureaucratic quality, and law and order, and use the same methodological approach. They show that aid has even a negative effect on governance. However, in contrast to this study, they focus on overall ODA without distinguishing between multilateral and bilateral flows. This distinction is done by Charron (2011) who, however, only considers the effects on the extent of corruption. According to his findings, total multilateral aid reduces corruption in the post 1997 period and not before, while bilateral aid does not show any impact. Similarly, Okada and Samreth (2012) also find that multilateral aid leads to a reduction in the national levels of corruption.[4]

Instead of analyzing the effectiveness of aid, another strand of literature focuses on the allocation of aid and its determining factors. Among this literature, there are also studies which explicitly deal with European aid flows. For example, Zanger (2000) shows in a simple OLS framework that aid flows either from large national European donors or from the European organizations are not affected by the respect for human

[4]In earlier studies Knack (2001) and Bräutigam and Knack (2004) documented a negative effect of foreign aid governance, specifically showing that aid increases corruption. Rajan and Subramanian (2007) demonstrate that aid negatively influences growth in manufacturing sector due do its negative effect on good governance, which is in particular important for the development of the manufacturing sector.

rights and the level of democracy in the recipient countries. In a recent study, Hout (2013) provides similar results. According to his findings, in distribution of development assistance civil and political liberties play a much less important role compared to the European economic interests. Schneider and Tobin (2013) also find evidence that strategic interests of the EU members in the aid recipient countries influence the allocation of the EU multilateral aid flows.[5] To my best knowledge, there is not any study that explicitly investigates the impact of the European multilateral and bilateral aid on governance.

The paper is structured as follows. The next section introduces the data and the estimation methodology also providing a descriptive picture of the development of governance as well as aid flows in the countries of the sample. Section 3 presents the estimation results and Section 4 concludes.

# 2 Data and Methodology

## 2.1 Variables and Descriptive Statistics

The measure of the governance quality is based on the data from the World Governance Indicators (WGI) provided by the World Bank (2014a). The WGI consist of six different indices. Each index is a perceptive measure of a specific dimension of governance and is constructed by using various data sources (see, Kaufmann et al. 2010a for a detail description of the methodology). These indicators are: "voice and accountability", "political stability and absence of violence/terrorism", "government effectiveness" (*goveff*), "regulatory quality" (*regqua*), "rule of law" (*rulelaw*), and "control of corruption" (*cc*). While the first two indicators rather capture political institutions and processes of government building, the last four indicators can be summarized as institutions that govern a government's capacity to implement polices as well as individuals' socio-economic interactions (Kaufmann et al. 2010a, p. 4). Each of the indices is scaled in the range between -2.5 and 2.5, with higher values standing for a better respective governance dimension. To compute an aggregate measure of governance (*govern*), I calculate an unweighted average of four indices leaving out the indicators on "voice and accountability" and "political stability and absence of violence/terrorism". Despite the fact that all six indicators are highly correlated among each other, the main reason for this selection is that socio-economic institutions generally change relatively faster over time than political institutions even though socio-economic institutions tend

[5] For a review on studies which analyze global allocation of aid, see, e.g., Tierney et al. (2011); Wright, J. and M. Winters (2010).

also to persist.[6] The WGI data covers nearly all countries in the world and is available from 1996 to 2002 biennially and from 2002 on annually.[7].

To analyze and to compare the effectiveness of aid flows from the European countries and the EU Institutions, respectively, I focus on the net ODA and consider only actual disbursement (and not commitment) flows. Specifically, I first use the sum of total bilateral ODA from Germany, France and the United Kingdom to examine the impact of aid from the European national governments (*bilater_aid*). These countries are the largest donors of ODA in Europe and accounted for more than 35% of total net ODA of all DAC members in 2012 (OECD 2014). The effectiveness of this variable is contrasted with the total multilateral ODA from the EU Institutions (*multilat_aid*). I then use more disaggregated project-level data of aid flows that are allocated to the "government and civil society" sector again distinguishing between bilateral aid (as the sum of assistance from the three largest European donor countries) and multilateral aid from the EU Institutions. The variables are denoted as *govciv_bilater* and *govciv_multilat*, respectively. The "government and civil society" sector comprises different sub-categories like "public sector policy and administrative management", "anti-corruption organizations and institutions", "legal and judicial development", "media and free flow of information" and thus offer appropriate measures to capture development assistance for governance building and improvement.[8] Given the measure of quality of governance, a usage of more specific sub-category level data might be even more appropriate yet coming at cost of data availability. The data on the absolute numbers for these different measures on aid flows all stem from the OECD operated database "Query Wizard for International Development Statistics (QWIDS)" and are denominated in current USD. However, while the aggregate data is provided by the general OECD statistics and annually available for a relatively long time span, the sectoral data is based on the so-called Creditor Reporting System (CRS) and covers only the years from 2002 onwards. Each aid variable is normalized with the recipient country's GNI (in current USD) using the data from the World Development Indicators (WDI) database provided by the World Bank (2014b).

To control for the influence of other variables than aid on the quality of governance,

[6] In addition, governance related assistance programs and projects mostly target public sector management and organization and development of civil society. Focusing on only four above mentioned governance dimensions might better correspond to the sector-specific aid data used in the analysis. However, the results presented below do not change qualitatively if additionally "voice and accountability" and "political stability and absence of violence/terrorism" are included.

[7] Although being widely used in academia as well as also relevant in policy making, some scholars have criticized the WGI for their perceptive nature and potential methodological weaknesses (see, e.g., Knack and Langbein, 2010). See also Kaufmann et. al (2010b) for responses to most of these critiques

[8] See the Annex to the OECD (2013) report for a detailed list of sub-categories and their respective description.

I include the following indicators: A measure of basic political rights, the Physical Integrity Rights Index ($physinteg$), which is constructed using the numbers on tortures, political prisoners, etc. by Cingranelli and Richards (2010). It ranges from 0 (no government respect for the rights) to 8. I use the Quality of Government Dataset provided by Teorell et al. (2013) as a source for this index, and expect a positive impact from it on the measure of governance. A measure of the degree of economic globalization from Dreher et al. (2006) that captures trade as well as financial openness (*open*). The idea behind the employment of this indicator is that the less restricted the economic transactions of a country with the rest of the world are, the less room there is for governments to enable administrative discretions, red tape, etc. A measure of natural resource revenues to capture the notion that resource abundance is generally associated with bad quality of governance (*resource*). I use the sum of fuel (oil and gas) and mineral rents as share of GDP from the WDI data. Finally, I control for the level of economic development, using the values of real GDP per capita, as well as the size of population (*gdppc* and *population*). For both variables I use the data from the WDI and take their respective natural logarithm. I use all these variables as co-variates in the baseline specifications. In addition, I also test the model predictions i) employing a more broader measure of democratic institutions (*democracy*), which is constructed as a mean of Freedom House indicators on political rights and civil liberties as well as the "polity2" scores on democratic regimes from the Polity IV database; ii) specifically controlling for the impact of the Freedom House score on press freedom (*pressfree*) and iii) existence of conflicts (*conflict*) to capture the influence of political stability in shaping socio-economic institutions. Table A.3 in the Appendix gives a detailed description of all data used in this study with the respective sources.

As we are interested in the impact of actual aid flows, I neglect some few observations with negative ODA.[9] Furthermore, I exclude from the sample all OECD countries (except Chile, which entered the organization only in 2010 and has been net recipient of European aid till then) as well as all 28 EU members. However, the sample comprises four potential EU candidates countries Albania, Bosnia-Herzegovina, Montenegro, and Serbia, as well as the EU candidate FYR Macedonia, which are eligible to receive assistance for transition and institution building within so-called Instrument for Pre-Accession Assistance (IPA).[10] Since, as shown below, the governance charac-

[9]When calculating net ODA, loan repayments are recorded as negative and deducted from ODA and loans. In some cases loan repayments are higher than new ODA and net ODA will show as a negative number (OECD 2013).

[10]Potential EU candidates also include Kosovo, and the other official EU candidate is Turkey, which is excluded from the sample as being an OECD country since 1961. Moreover, the IPA comprises more components than the above mentioned assistance. Yet while only official EU candidates are eligible for all IPA measures, potential candidates are only eligible to benefit from financial assistance

teristics and the amount of development assistance for this region significantly differ from other country regions in the sample, I also test the results excluding the IPA countries. Other countries in the sample are clustered along the regional organization of the development assistance from the European Union that is based on the following country grouping: African, Caribbean, and Pacific (ACP); European Neighborhood Policy (ENP); other developing countries (ODC) including South Africa and countries from Latin America, Asia, and the Middle-East.[11] Moreover, for some countries, which are recipients of bilateral aid flows, observations on multilateral aid flows are missing. In order to make the results comparable, I therefore consider only those countries for which both types of aid data are available. Considering also data availability for the control variables leaves us with a sample of 103 countries for the period 1996-2011. Table A.2 lists all these countries with the respective regional classification.

For each variable, I compute three-year averages to account for the fact that governance measures are available with annual gaps at the beginning of the sample period and, most importantly, that they change relatively slowly over time. Table A.1 presents the summary statistics for all variables which I use in the analysis.

Before econometrically analyzing the relationship between European aid flows and quality of governance, the figures below present a descriptive picture for these two variables. Figure 1 illustrates the trends in the four measures of different types of European development assistance over the period investigated thereby distinguishing between absolute values (panel a) and measures of aid as share of the recipients' GNI (panel b). The mean absolute values of both, bilateral and multilateral total aid, increased between 1996 and 2011. Although being always higher than multilateral aid, development assistance from national governments exhibits a sharp decline in 2007/2008, potentially reflecting the "Great Recession", but it also recovers quite fast. The trend of the relative bilateral flows was, however, decreasing during the same period and even dropped below the level of the multilateral aid at the end of the time span. By contrast, aid allocated to the government and civil society sector - regardless from the EU Institutions or the three largest European national donors - does not show much fluctuation. It slightly increased in both absolute and relative terms at the beginning of the millennium and then remained relatively constant. It is also important to note that the amount of this specific aid does not differ much in absolute or relative terms between bilateral and multilateral flows.

for transition and institution building and European cross-border cooperation. For more information on IPA, see European Council (2006).

[11] Information on the geographical instruments of the EU's development policy and the full list of the respective countries can be obtained from https://ec.europa.eu/europeaid/funding/funding-instruments-programming/funding-instruments

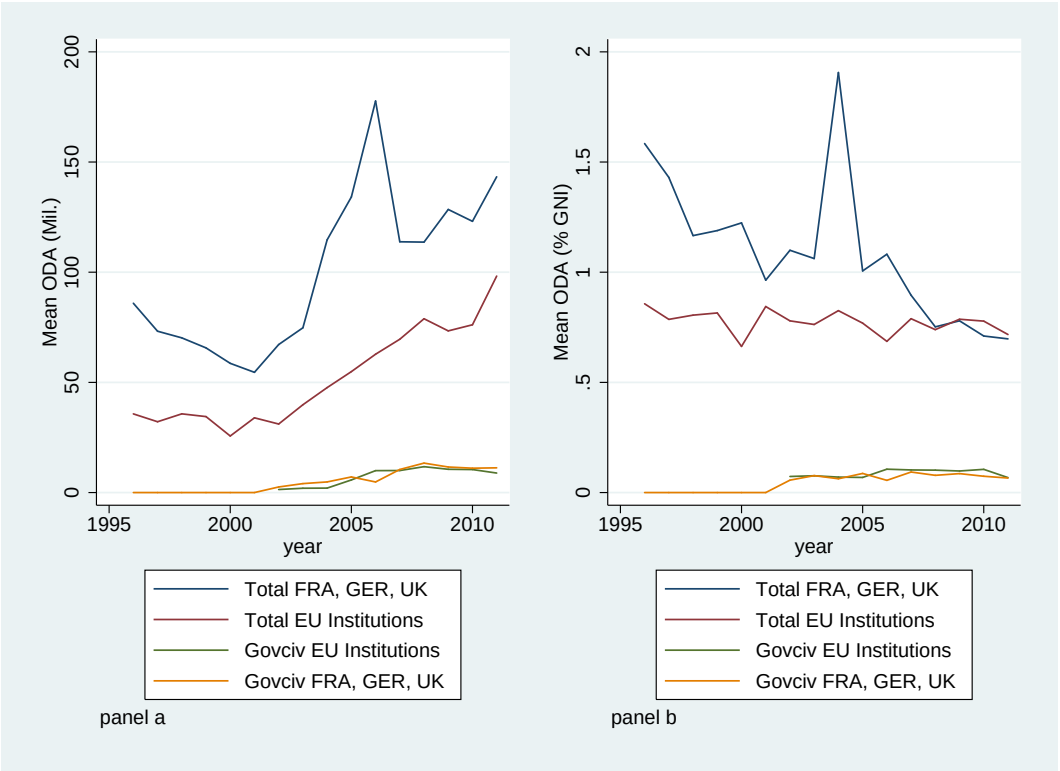


Figure 1: Trends in European Aid Flows

The trends and levels of the quality of governance - measured as mean values of "government effectiveness", "regulatory quality", "rule of law", and "control of corruption" - vary significantly across the regions. Figure 2 shows these different patterns dividing countries along the geographical organization of the development assistance at the EU level as described above. The mean governance quality in the ODC region at first has the highest level but almost permanently declines during the observation time span, and is outperformed by the IPA region at its end. The governance quality in the latter region shows the largest change improving from the worst to the best region in the sample. The trends in two other remaining regions are relatively constant with slight improvement in the ENP countries and the ACP ones exhibiting the lowest level of governance quality. As can be seen from the last Figure 3, these regions also differ with respect to the amount of the disbursed aid. In relative terms, the ACP region has been the largest recipient of both bilateral and multiracial aid. The empirical analysis therefore also accounts for these regional differences in governance performance and aid distribution.

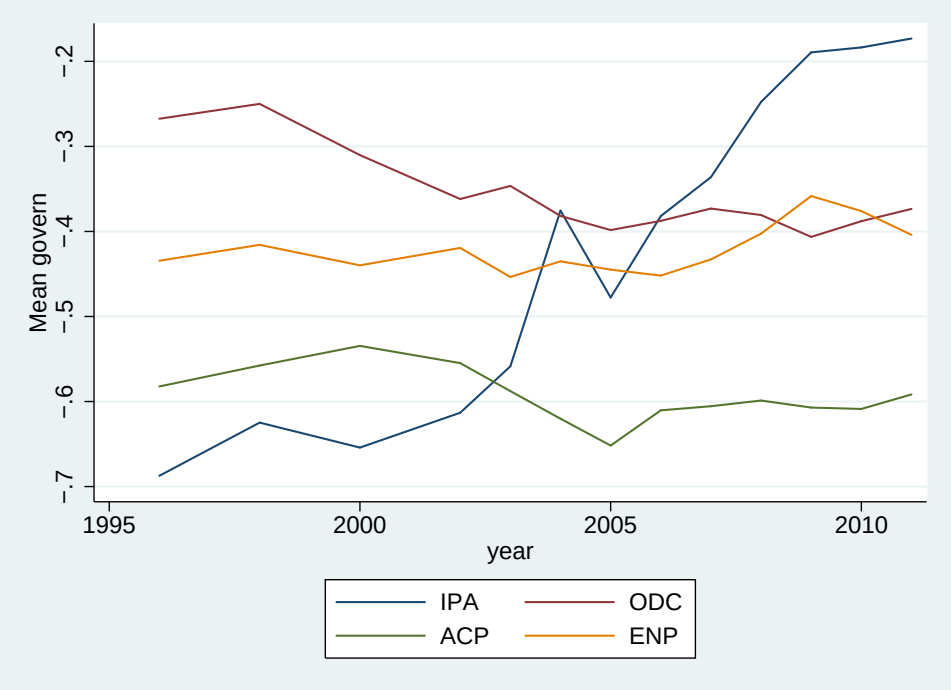


Figure 2: Regional Trends in Governance Quality

## 2.2 Estimation Strategy

In developing the estimation strategy, several questions arise. First, institutional indicators tend to persist. Although I reduce the frequency of the data creating three-years averages, current realization of governance measure is still very likely to be dependent on the past ones. Second, the main variables of interest - aid flows - are likely to be endogenous implying that allocation of aid flows are potentially determined, among other factors, by the quality of governance itself.[12] This notion also applies to other regressors which are used as controls. Third, the variation in governance indicators as well as in independent variables might be additionally driven by some unobserved time invariant factors. Fourth, with annually averaged data, we have a relatively small number of observation periods of five. Finally, as it is usually the case in a cross-country macro dataset, the error terms are subject to heteroskedasticity and serial correlation.

In order to address these potential problems, I apply the dynamic panel estimator known as system-GMM (Generalized Method of Moments) that has been proposed by Arellano and Bover (1995) and Blundell and Bond (1998). As extensively discussed in Roodman (2009a), the GMM method addresses all the issues listed above. The clear practical advantage of this method is, however, that it does not rely on "external" instruments for all potential endogenous variables but uses the past realizations of

[12] As mentioned in the Introduction, there are many studies that treat aid flows as a dependent variable showing that factors like good governance, democratic structure and human rights affect their allocation.

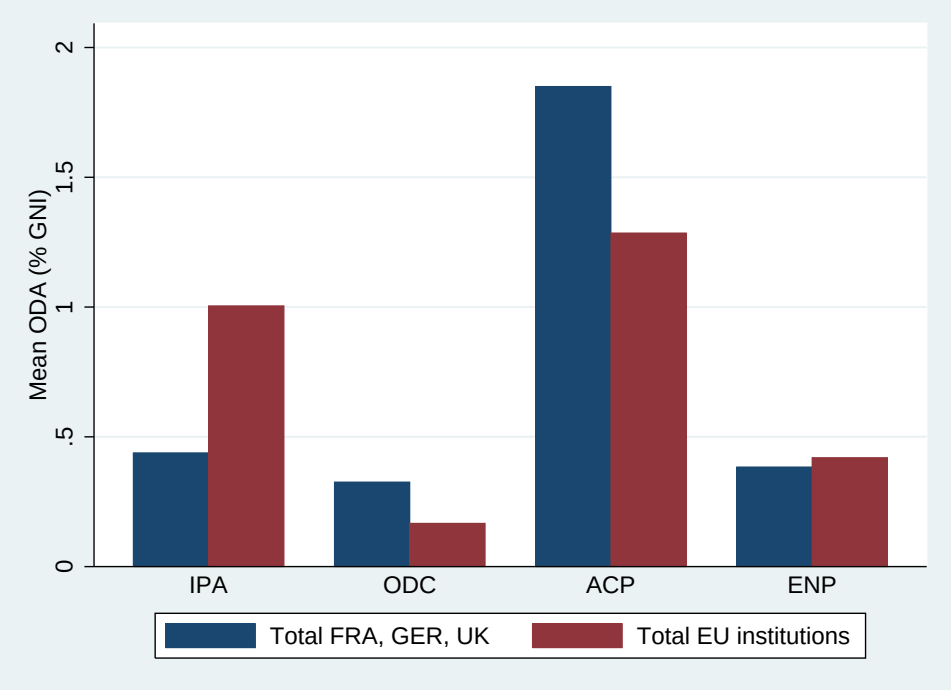


Figure 3: Regional Distrubution of European Aid

variables as "internal" instruments. Applied to this context, the system-GMM estimator is specifically based on the following two equations:

$$Governance_{it} = a_i + b_t + \beta_1 Governance_{it-1} + \beta_2 Aid_{it} + \beta_3' X_{it} + \epsilon_{it} \quad \text{and} \qquad (1)$$

$$\Delta Governance_{it} = b_t + \beta_1 \Delta Governance_{it-1} + \beta_2 \Delta Aid_{it} + \beta_3' \Delta X_{it} + \Delta\epsilon_{it} \ , \qquad (2)$$

where the subscript $i$ refers to countries, while the subscript $t$ refers to years. *Governance* either stands for the aggregate governance indicator or for one of its subcomponents, $Aid$ captures one of the four ODA measures, and $X$ is the set of the control variables. $a_i$ and $b_t$ denote country and time fixed effects, and $\epsilon$ is the usual unobservable error term. With the system-GMM methodology, equation (1) is first transformed into equation (2) using first-differences ($\Delta$) which eliminates the country fixed effects. Then both equations are estimated simultaneously whereby lagged first-differences of all potential endogenous variables are used as their own instruments in the level equation (1), and lagged levels of the respective variables are used as instruments in the first-difference equation (2).[13]

However, there are two potential caveats in applying this method. First, there might

[13]System-GMM is basically the augmented version of the Arelano and Bond (1991) "difference GMM" estimator, which, in our case, would only estimate the second equation using the lagged levels of the regressors as instruments for the first-differenced regressors.

be a problem of "too many instruments" that results in over-fitting the endogenous variables and correspondingly weaken the power of Sargan/Hansen statistics, which are used to detect the over-identification problem, i.e. whether the instruments as a group are valid (Roodman 2009a, pp.98; 2009b).[14] To deal with this problem, I follow the "rule of thumb" assuring that the number of instruments does not exceed the number of countries. Specifically, I restrict the lag structure for instruments from 2 to 3. I also test the results by significantly reducing the number of instruments as suggested by Roodman (2009a). Additional to reporting the number of instruments, I report the results of Hansen's (1982) $J$ test for joint validity of instruments which is more appropriate under the assumption of heteroskedasticity than the Sargan tests (Roodman 2009a). Second, as this method uses the lagged values as instruments, it assumes that there is no autocorrelation in the error terms. I therefore also report the p-values for the Arellano-Bond test for second order autocorrelation which has a null hypothesis of no autocorrelation.

Furthermore, I include dummies for each period to capture period specific effects. I treat all right-hand variables, except population, as endogenous. The standard errors estimates are robust to the presence of heteroskedasticity and autocorrelation.[15]

# 3 Results

Table 1 presents the main findings showing the estimation results for the influence of the total bilateral and multilateral European aid flows on the aggregate quality of governance. The first two columns report the baseline estimation results; in models (3) and (4), I exclude the five EU accession candidate countries; and models (5) and (6) repeat the baseline estimations severely reducing the instrument count by collapsing the instrument matrix.[16]

Throughout all models, the sum of the bilateral ODA from the three largest EU

[14] If there are three observation periods in the sample, system GMM generates two instruments for each endogenous variable: one lagged value in levels to instrument the first-difference, and one lagged first-difference variable to instrument the level of the corresponding variable (e.g. $\Delta Governance_{i3}$ is instrumented by $Governance_{i1}$, and $Governance_{i3}$ is instrumented by $\Delta Governance_{i2}$.) However, as the time dimension of the sample increases, the number of instruments rises exponentially resulting in an over-fitting of endogenous variables and thus imprecise estimation of the moment conditions. As a consequence, this instrument proliferation can cause biased estimators and specification tests (Roodman 2009b).

[15] I use the two-step robust estimator which applies the Windmeijers (2005) finite-sample correction for the two-step covariance matrix.

[16] Collapsing option makes sure that one instrument is created for each variable and lag distance, rather than one for each time period, variable, and lag distance. The lag structure is extended in these models from 2 to 6.

countries does not show any significant impact on the quality of governance. On the contrary, the multilateral aid flows from the EU Institutions significantly increase the quality of governance. The signs of other coefficients indicate that the size of population and higher protection of basic rights are generally associated with better quality of governance whereas rents from natural resources tend to worsen it. The effect of economic development is generally positive but only statistically significant in few models; and the effect of economic openness tends to be not relevant.

In all the models in 1, the $p$-values of the Hansen's $J$ test for over-identifying restrictions are higher than the conventional critical levels of 0.05 (and even 0.10) indicating that the joint validity of the instruments is not rejected. In addition, the $p$-values of the Arellano-Bond (AR) test suggest that there is no second-order autocorrelation in residuals within all models which use multilateral aid flows. However, the same test indicates that the problem of autocorrelation might be present when using bilateral aid flows in models (1) and (3); but it disappears when the number of instruments is significantly reduced (model 6).

In order to verify the predictions about the different impact of multilateral and bilateral aid flows on governance, I also use more disaggregated sector-specific aid data that captures financial assistance to the government and civil society sector. The results of this exercise are shown in Table 2 which is constructed in a similar way as Table 1. Again the influence of the multilateral EU assistance is positive and significant at conventional levels whereas bilateral aid allocated to the same sector does not show any significant impact. These findings confirm the notion that the difference in the effectiveness of the European aid is driven by its source rather by its allocation. Aid from the EU Institutions, in contrast to the assistance from the European national governments, tends on average to reach its development objectives in terms of improvement of governance quality.

The main findings are also confirmed, if I use alternative model specifications. In Table 3, I additionally control for the impact of conflicts and degree of press freedom and also test a model, in which the variable on physical integrity is replaced with a broader measure of democratic institutions. The results with respect to the effectiveness of the European aid flows do not change compared to those obtained from Table 1.

In addition to the statistical relevance, the quantitative effect of the multilateral aid on the measure of governance is also not negligible. Consider, for example, the baseline specification in Table 1. The coefficient of *multilat_aid* taken at the face value - 0.067 - implies that an increase in aid (in % of GNI) by its within standard deviation - 0.44 - raises the value of $govern$ by 0.03 points. This may appear small at a first

Table 1: Total European Aid Flows and Governance

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| govern(t-1) | 0.833*** | 0.814*** | 0.845*** | 0.856*** | 0.927*** | 0.914*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| bilater_aid | 0.008 | | 0.009 | | 0.029 | |
| | (0.314) | | (0.302) | | (0.233) | |
| population | 0.028*** | 0.040*** | 0.024** | 0.040*** | 0.000 | 0.039 |
| | (0.003) | (0.001) | (0.015) | (0.004) | (0.992) | (0.102) |
| physinteg | 0.037*** | 0.039*** | 0.030** | 0.040** | -0.011 | 0.017 |
| | (0.002) | (0.009) | (0.015) | (0.027) | (0.730) | (0.502) |
| resource | -0.002** | -0.002* | -0.002** | -0.001 | -0.002 | -0.001 |
| | (0.015) | (0.070) | (0.018) | (0.184) | (0.299) | (0.379) |
| open | 0.000 | 0.002 | 0.001 | 0.002 | 0.001 | 0.003 |
| | (0.812) | (0.397) | (0.585) | (0.427) | (0.677) | (0.226) |
| gdppc | 0.040 | 0.058** | 0.027 | 0.044 | 0.038 | 0.076 |
| | (0.178) | (0.031) | (0.396) | (0.161) | (0.537) | (0.173) |
| multirat_aid | | 0.067*** | | 0.066*** | | 0.134*** |
| | | (0.002) | | (0.003) | | (0.002) |
| Observ. | 396 | 396 | 380 | 380 | 396 | 396 |
| Countries | 103 | 103 | 98 | 98 | 103 | 103 |
| Instruments | 63 | 63 | 63 | 63 | 39 | 39 |
| Hansen (p-value) | 0.244 | 0.129 | 0.244 | 0.127 | 0.122 | 0.0939 |
| AR2 (p-value) | 0.0630 | 0.480 | 0.0633 | 0.433 | 0.189 | 0.807 |

The dependent variable is *govern*. Estimation based on two-step system-GMM estimator with robust standard errors;*p*-values in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions include constant terms and period dummies. p- values of Hansen J test of overidentification restrictions and Arellano-Bond-test of no second-order autocorrelation in first differences (AR2) are reported.

Table 2: Sectoral European Aid Flows and Governance

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| govern(t-1) | 0.779*** | 0.886*** | 0.842*** | 0.919*** | 1.038*** | 1.005*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| govciv_bilater | -0.056 | | -0.038 | | -0.088 | |
| | (0.514) | | (0.599) | | (0.671) | |
| physinteg | 0.060*** | 0.044** | 0.043** | 0.037** | 0.036 | 0.014 |
| | (0.007) | (0.020) | (0.039) | (0.042) | (0.290) | (0.747) |
| population | 0.040** | 0.046*** | 0.029* | 0.041*** | 0.023 | 0.034 |
| | (0.020) | (0.001) | (0.059) | (0.003) | (0.382) | (0.306) |
| open | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.000 |
| | (0.410) | (0.260) | (0.469) | (0.315) | (0.614) | (0.868) |
| resource | -0.002** | -0.002* | -0.002 | -0.002 | 0.001 | -0.001 |
| | (0.046) | (0.051) | (0.137) | (0.105) | (0.653) | (0.574) |
| gdppc | -0.005 | 0.033 | -0.018 | 0.017 | -0.076 | 0.053 |
| | (0.867) | (0.319) | (0.520) | (0.610) | (0.209) | (0.275) |
| govciv_multirat | | 0.340** | | 0.272* | | 0.471* |
| | | (0.033) | | (0.093) | | (0.064) |
| Observ. | 339 | 339 | 326 | 326 | 339 | 339 |
| Countries | 102 | 102 | 97 | 97 | 102 | 102 |
| Instruments | 59 | 58 | 59 | 58 | 36 | 36 |
| Hansen (p-value) | 0.115 | 0.303 | 0.156 | 0.270 | 0.112 | 0.299 |
| AR2 (p-value) | 0.0491 | 0.303 | 0.0545 | 0.368 | 0.184 | 0.481 |

Estimation based on two-step system-GMM estimator with robust standard errors;*p*-values in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions include constant terms and period dummies. $p$-values of Hansen J test of overidentification restrictions and Arellano-Bond-test of no second-order autocorrelation in first differences (AR2) are reported.

Table 3: Total European Aid Flows and Governance: Alternative Models

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| govern(t-1) | 0.867*** | 0.830*** | 0.906*** | 0.870*** | 0.918*** | 0.898*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| bilater_aid | 0.009 | | 0.010 | | 0.014 | |
| | (0.135) | | (0.303) | | (0.150) | |
| population | 0.022** | 0.032*** | 0.023** | 0.036*** | 0.004 | 0.015* |
| | (0.020) | (0.009) | (0.011) | (0.001) | (0.379) | (0.062) |
| physinteg | 0.034** | 0.040** | 0.036** | 0.038*** | | |
| | (0.013) | (0.017) | (0.014) | (0.007) | | |
| resource | -0.002** | -0.002* | -0.002** | -0.002** | -0.001 | -0.002* |
| | (0.030) | (0.054) | (0.044) | (0.049) | (0.160) | (0.069) |
| open | 0.001 | 0.002 | 0.001 | 0.002 | 0.001 | 0.005** |
| | (0.603) | (0.239) | (0.494) | (0.319) | (0.481) | (0.039) |
| gdppc | 0.033 | 0.046 | 0.014 | 0.044 | 0.011 | 0.020 |
| | (0.233) | (0.126) | (0.618) | (0.117) | (0.778) | (0.560) |
| conflict | 0.070 | 0.081 | | | | |
| | (0.449) | (0.372) | | | | |
| multirat_aid | | 0.056** | | 0.064*** | | 0.082*** |
| | | (0.014) | | (0.001) | | (0.007) |
| pressfree | | | 0.001 | 0.001 | | |
| | | | (0.314) | (0.482) | | |
| democracy | | | | | 0.004 | -0.012 |
| | | | | | (0.683) | (0.256) |
| Observ. | 396 | 396 | 396 | 396 | 396 | 396 |
| Countries | 103 | 103 | 103 | 103 | 103 | 103 |
| Instruments | 73 | 73 | 73 | 73 | 63 | 63 |
| Hansen (p-value) | 0.349 | 0.225 | 0.249 | 0.139 | 0.337 | 0.221 |
| AR2 (p-value) | 0.135 | 0.472 | 0.0950 | 0.496 | 0.127 | 0.953 |

The dependent variable is *govern*. Estimation based on two-step system-GMM estimator with robust standard errors;*p*-values in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions include constant terms and period dummies. p- values of Hansen J test of overidentification restrictions and Arellano-Bond-test of no second-order autocorrelation in first differences (AR2) are reported.

glance. However, taking the variation of the governance scores into account, an increase by 0.03 would amount for about 30 % of its within, and about 5.6 % of its between standard deviation.

Having established a robust positive impact of the EU multilateral aid flows on the aggregate governance measure, I next analyze whether this impact differs among different governance indicators. Table 4 reports the corresponding results. Total EU multilateral aid flows positively influence all governance indicators. However, it is worth mentioning that these results are sensitive to the number of instruments used: whereas the impact on corruption become insignificant in some specifications, the impact on other indicators remain robust regardless of the instrument count. I also exercise the same testing with the effect of bilateral aid flows. In consistence with the main findings, there is not an impact on any of the governance indicators (results not reported).

As mentioned above, country regions in the sample - African, Caribbean, and Pacific (ACP); European Neighborhood Policy (ENP); other developing countries; and EU accession candidates - differ with respect to their governance performance (see Figure 2) and amount of assistance they have been receiving from the EU (Figure 3). Does the impact of the multilateral EU aid flows also vary among these regions? To answer this question, I construct interaction terms multiplying country level data on multilateral aid with a dummy variable that captures the respective region, and include these terms as well as the respective dummies in the regression equations (1) and (2). I do not construct this type of interaction for all four regions since simultaneously including all of them in one regression would cause obvious problems of collinearity. Instead, I explicitly consider only the first three regions - ACP, ENP, and ODC - and thus the coefficients of the corresponding variables should be interpreted in relative terms to the full sample that additionally includes the five accession candidates. I treat the interaction terms as endogenous (because aid flows are still assumed to be endogenous) and the regional dummies, naturally, as strictly exogenous. This certainly increases the number of instruments relative to the previous models. The estimation results are presented in Table 5. For the sake of lucidity, the coefficients of control variables are not reported. In specifications (1) and (2), the lag structure for instruments is restricted from 2 to 3, as in all baseline models above. Models (3) and (4) repeat these estimations by collapsing the instrument matrix. In addition, models (2) and (4) leave out largest recipients of aid flows (relative to their national GNI).[17] The results show that the average positive effect of aid from the EU Institutions is statistically sig-

[17] Burundi, Guinea-Bissau, Mauritania account for the largest observations of *multirat_aid* in the sample and belong to the group of the ACP countries.

Table 4: Multilateral European Aid and Governance Dimensions

| | cc | rulelaw | goveff | regqua |
|---|---|---|---|---|
| cc(t-1) | 0.749*** | | | |
| | (0.000) | | | |
| multirat_aid | 0.066** | 0.084*** | 0.044* | 0.093** |
| | (0.037) | (0.006) | (0.054) | (0.033) |
| physinteg | 0.048*** | 0.025 | 0.030 | 0.044** |
| | (0.002) | (0.226) | (0.116) | (0.035) |
| population | 0.040*** | 0.030 | 0.040** | 0.061*** |
| | (0.001) | (0.100) | (0.032) | (0.000) |
| open | 0.001 | 0.001 | 0.001 | 0.005 |
| | (0.788) | (0.712) | (0.591) | (0.119) |
| resource | -0.002* | -0.003* | -0.002 | -0.002 |
| | (0.098) | (0.052) | (0.145) | (0.249) |
| gdppc | 0.066 | 0.091** | 0.061** | 0.031 |
| | (0.105) | (0.031) | (0.019) | (0.407) |
| rulelaw(t-1) | | 0.773*** | | |
| | | (0.000) | | |
| goveff(t-1) | | | 0.884*** | |
| | | | (0.000) | |
| regqua(t-1) | | | | 0.894*** |
| | | | | (0.000) |
| Observ. | 396 | 396 | 396 | 396 |
| Countries | 103 | 103 | 103 | 103 |
| Instruments | 63 | 63 | 63 | 63 |
| Hansen (p-value) | 0.198 | 0.289 | 0.179 | 0.101 |
| AR2 (p-value) | 0.135 | 0.910 | 0.404 | 0.679 |

Estimation based on two-step system-GMM estimator with robust standard errors;*p*-values in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions include constant terms and period dummies. $p$-values of Hansen J test of overidentification restrictions and Arellano-Bond-test of no second-order autocorrelation in first differences (AR2) are reported.

nificant throughout all models in the ACP region, and if we exclude the outliers, also in the countries under the European Neighborhood Policy. By contrast, this type of aid flows does not seem to improve on average the governance quality in other developing countries. Note that the governance quality in the ACP and ENP regions is relatively poor compared to two other regions (Figure 2). The results in this context can therefore be interpreted as being consistent with the notion that aid might have diminishing returns[18]: Multilateral assistance helps to improve governance. Once it reaches a certain quality level, however, aid might loose its effectiveness.

# 4 Conclusion

Despite being the largest multinational donor of development assistance, research investigating the aid effectiveness from the European Union has been very scarce. This paper has focused on the impact of financial aid flows on the quality of governance in the recipient countries and contrasted the influence of multilateral aid flows from the EU Institutions with the effect of the bilateral aid from the largest European national donors - Germany, France, and the United Kingdom. The importance of good governance as one of the major areas of the European development policy is duly documented and reflected in substantial amounts of development funds devoted to this area. Employing a dataset on 103 net recipients of the European ODA, I have used dynamic panel estimations methods in order to deal with the potential problems of the endogeneity of aid flows and time persistence of the governance measures. Quality of governance is captured by the World Governance Indicators of "government effectiveness", "regulatory quality", "rule of law", and "control of corruption".

The results show that aid from the EU Institutions leads on average to an improvement of governance quality while aid provided from the European national governments does not show any impact. These results hold for identical country samples and different estimation models. These findings thus verify the view that multinational development agencies tend to be more effective in achieving the developmental goals in terms of better governance. For example, they corroborate Charron's (2011) findings according to which multilateral - in contrast to bilateral - aid positively affects control of corruption. Interestingly, this effect seems to be only existent after the mid-1990s but not before, which also overlaps with the investigation time span of this paper and suggests that the ''governance turn" (Hout 2013) in development policy since 90s

[18]For example, Hansen and Tarp (2001), Sachs (2006) show positive but diminishing impact of aid on growth. Aronow et al (2013) demonstrate that aid has a positive effect on human rights and democracy only in the short-run.

Table 5: Multilateral European Aid and Governance and Regional Differences

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| govern(t-1) | 0.891*** | 0.921*** | 0.942*** | 0.886*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| multirat_aid | -0.0414* | -0.0503* | -0.00325 | -0.0218 |
| | (0.098) | (0.052) | (0.927) | (0.566) |
| ENP x | 0.0932 | 0.0955* | 0.448 | 0.546* |
| multirat_aid | (0.126) | (0.062) | (0.100) | (0.060) |
| ACP x | 0.103*** | 0.102*** | 0.108** | 0.189** |
| multirat_aid | (0.001) | (0.007) | (0.016) | (0.036) |
| ODC x | 0.109 | 0.140 | 0.148 | 0.232 |
| multirat_aid | (0.259) | (0.170) | (0.499) | (0.120) |
| ACP | -0.170*** | -0.186*** | -0.204** | -0.241*** |
| | (0.001) | (0.000) | (0.016) | (0.001) |
| ODC | -0.161*** | -0.186*** | -0.155** | -0.159** |
| | (0.002) | (0.000) | (0.027) | (0.028) |
| ENP | -0.121** | -0.151*** | -0.250** | -0.282** |
| | (0.046) | (0.007) | (0.034) | (0.032) |
| Observ. | 396 | 384 | 396 | 384 |
| Countries | 103 | 100 | 103 | 100 |
| Instruments | 96 | 96 | 60 | 60 |
| Hansen (p-value) | 0.421 | 0.468 | 0.274 | 0.376 |
| AR2 (p-value) | 0.476 | 0.244 | 0.466 | 0.143 |

The dependent variable is $govern$. Estimation based on two-step system-GMM estimator with robust standard errors;*p*-values in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All regressions include the control variables from previous tables as well as the constant term and period dummies. $p$-values of Hansen J test of overidentification restrictions and Arellano-Bond-test of no second-order autocorrelation in first differences (AR2) are reported.

has shown some real positive results from a multilateral perspective. The paper does not, however, explicitly address the exact mechanisms which are responsible for its findings. One common argument is that bilateral aid might be mainly used for national strategic interests and therefore less prioritizes the governance aspects in the recipient countries. Yet I obtain qualitatively same results if I use disaggregated aid data allocated to the government and civil society sector instead of the aggregate total ODA flows. Moreover, the amount of funds allocated to this sector does not differ significantly between bilateral and multilateral flows. Taken together, this makes the argument of different motives among European development donors as the main driving force of the different outcomes less likely.

Another explanation might be that the EU Institutions have more effective development instruments including stronger requirements, better coordination and technical capacities for monitoring than their national counterparts. In this context, development policy would definitely benefit from an in-depth quantitative and qualitative analysis on the effectiveness of the relatively recently installed "governance incentive tranche" and "governance facility" EU development instruments, which both build on the principals of positive conditionality. Testing the impact of the similarly designed Millennium Challenge Corporation (MCC) program, which is operated by the USAID, on control of corruption, ´Ohler et al. (2012), for example, provides evidence in support of the performance-based development instruments.

Finally, further analysis can be carried out with a focus on the channels through which European bilateral and multilateral aid is disbursed thereby in particularly distinguishing between state and non-state actors in the recipient countries. A recent study by Acht et al. (2015), for example, argues that in countries with poor levels of governance, donors might bypass state institutions delivering relatively more aid through non-governmental channels. This might in turn have indirect positive feedback effects on the quality of governance, e.g. via strengthening civil society and capacity building, and would not result in immediate resources for rent seeking and corruption in malfunctioning public sector.

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# A Appendix

Table A.1: Summary statistics

| Variable | Mean | Overall SD | Between SD | Within SD | Min | Max | No. of Obs. (No. of Cntr.) |
|---|---|---|---|---|---|---|---|
| govern | -0.473 | 0.550 | 0.539 | 0.139 | -1.723 | 1.372 | 487 (104) |
| cc | -0.504 | 0.568 | 0.544 | 0.178 | -1.596 | 1.548 | 487 (104) |
| rulelaw | -0.549 | 0.619 | 0.605 | 0.171 | -2.047 | 1.397 | 487 (104) |
| goveff | -0.459 | 0.577 | 0.567 | 0.158 | -1.851 | 1.473 | 487 (104) |
| regqua | -0.381 | 0.586 | 0.557 | 0.186 | -2.078 | 1.525 | 487 (104) |
| bilater_aid | 1.087 | 1.760 | 1.314 | 1.148 | 0.001 | 23.948 | 487 (104) |
| multirat_aid | 0.761 | 1.089 | 0.958 | 0.490 | 0.000 | 7.251 | 487 (104) |
| govciv_bilater | 0.049 | 0.135 | 0.103 | 0.083 | 0 | 1.292 | 487 (104) |
| govciv_multirat | 0.082 | 0.182 | 0.144 | 0.103 | 0.000 | 1.773 | 338 (102) |
| physinteg | 4.130 | 1.910 | 0 | 1.749 | 0.810 | 8 | 487 (104) |
| open | 50.593 | 13.943 | 12.945 | 5.361 | 13.61 | 84.577 | 487 (104) |
| resource | 8.378 | 14.049 | 13.359 | 4.781 | 0 | 67.932 | 487 (104) |
| gdppc | 7.131 | 1.089 | 1.108 | 0.166 | 4.824 | 9.621 | 487 (104) |
| population | 16.16 | 1.584 | 1.594 | 0.091 | 12.295 | 21.014 | 487 (104) |
| democracy | 5.748 | 2.632 | 2.584 | 0.769 | 0 | 10 | 487 (104) |
| pressfree | 54.131 | 18.564 | 18.250 | 5.439 | 15.5 | 94.333 | 487 (104) |
| conflict | 0.162 | 0.322 | 0.262 | 0.181 | 0 | 1 | 487 (104) |

Table A.3: Variable Description

| Variable | Description & Source |
|---|---|
| ACP | Dummy variable indicating whether a country belongs to the group of African, African, Caribbean, and Pacific countries. *Source*: See Table A.2. |
| bilater_aid | Sum of total bilateral ODA from Germany, France and the United Kingdom in % of the recipient country's GNI. *Source*: ODA (disbursement, in current prices, USD) from OECD (2014); GNI (in current prices, USD) from World Bank (2014b). |
| cc | Control of corruption indicator "captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests"; ranging from approximately -2.5 (weak) to 2.5 (strong). *Source*: World Bank (2014a) |

continued on the next page

Table A.3: Variable Description

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| Variable | Description & Source |
|---|---|
| conflict | Incidence of armed conflicts; 0 - no conflicts, 1 - minor conflicts or wars. *Source*: UCDP/PRIO Armed Conflict Dataset; own calculation. |
| democracy | Measure on democracy ranging from 0 ( least democratic) to 10 (most democratic). Average of Freedom House indicators on political rights and civil liberties is transformed to a scale 0 - 10 and then averaged with Polity2 measure. *Source*: Teorell et al. (2013). |
| ENP | Dummy variable indicating whether a country belongs to the group of the European Neighbourhood Policy. *Source*: See Table A.2. |
| gdppc | Natural logarithm of GDP per capita at constant prices. *Source*: World Bank (2014b). |
| govciv_bilater | Sum of ODA from Germany, France and the United Kingdom allocated to "government and civil society" sector in in % of the recipient country's GNI. *Source*: ODA (disbursement, in current prices, USD) from OECD (2014); GNI (in current prices, USD) from World Bank (2014b). |
| govciv_multilat | ODA from EU Institutions allocated to "government and civil society" sector in in % of the recipient country's GNI. *Source*: ODA (disbursement, in current prices, USD) from OECD (2014); GNI (in current prices, USD) from World Bank (2014b). |
| goveff | Government effectiveness indicator "captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies"; ranging from approximately -2.5 (weak) to 2.5 (strong) *Source*: World Bank (2014a). |

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Table A.3: Variable Description

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| Variable | Description & Source |
|---|---|
| govern | Measure of the quality of governance. It is calculated as an unweighted average of "government effectiveness", "regulatory quality", "rule of law", and "control of corruption". *Source*: Own calculation. |
| multilat_aid | Total ODA from EU Institutions in % of the recipient country's GNI. *Source*: ODA (disbursement, in current prices, USD) from OECD (2014); GNI (in current prices, USD) from World Bank (2014b). |
| ODC | Dummy variable indicating whether a country belongs to the group of "other developing countries". *Source*: See Table A.2. |
| open | Index of economic globalization from the KOF Globalization Index; it ranges from 0 (least globalized) to 100 (most globalized). *Source*: Dreher (2006). |
| physinteg | Physical integrity rights index. This is an additive index constructed from the Torture, Extrajudicial Killing, Political Imprisonment, and Disappearance indicators. It ranges from 0 (no government respect for these four rights) to 8 (full government respect for these four rights) and constructed by Cingranelli and Richards (2010). *Source*: Teorell et al. (2013). |
| population | Natural logarithm of population. *Source*: World Bank (2014b). |
| pressfree | Freedom of the press score; 0 (most free) - 100 (least free). *Source*: Freedom House (2014). |
| resource | Sum of oil, gas and mineral rents in % GDP. *Source*: World Bank (2014b) |

continued on the next page

Table A.3: Variable Description

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| Variable | Description & Source |
|---|---|
| regqua | Regulatory quality indicator "captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development;" ranging from approximately -2.5 (weak) to 2.5 (strong). *Source*: World Bank (2014a) |
| rulelaw | Rule of law indicator "captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence;" ranging from approximately -2.5 (weak) to 2.5 (strong). *Source*: World Bank (2014a) |

Table A.2: List of Countries

| **African, Caribbean, Pacific countries (ACP)** |
|---|
| Angola, Barbados, Belize, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Congo DR, Congo, Côte d'Ivoire, Dominican Republic, Ethiopia, Fiji, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Guyana, Haiti, Jamaica, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Papua New Guinea, Rwanda, Senegal, Sierra Leone, Sudan, Suriname, Swaziland, Tanzania, Togo, Trinidad and Tobago, Uganda,Zambia, Zimbabwe |
| **Countries under the European Neighborhood Policy (ENP)** |
| Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Jordan, Lebanon, Moldova, Morocco, Syria, Tunisia, Ukraine |
| **Countries eligible for the Instrument for Pre-Accession Assistance (IPA)** |
| Albania, Bosnia-Herzegovina, Montenegro, FYR Macedonia, Serbia |
| **Other Developing Countries (ODC)** |
| Argentina, Bangladesh, Bolivia, Brazil, Cambodia, Chile, China, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, India, Indonesia, Iran, Kazakhstan, Kyrgyzstan, Malaysia, Mongolia, Nepal, Nicaragua, Pakistan, Panama, Paraguay, Peru, Philippines, Saudi Arabia, South Africa, Sri Lanka, Tajikistan, Thailand, Uruguay, Venezuela, Vietnam, Yemen |

The classification is done along the geographical instruments of the European Union's development assistance program. For the full list of countries in the respective regional group see https://ec.europa.eu/europeaid/funding/funding-instruments-programming/funding-instruments.