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THREE MODELS OF US FOREIGN AID POLICY: A COMPARATIVE TEST

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Abstrak

Artikel ini bertujuan untuk menguji serangkaian teori tentang kebijakan bantuan luar negeri AS. Tiga teori yang diuji adalah: interest-driven theory, humanitarian theory dan domestic political theory. Dengan menggunakan data longitudinal mengenai jumlah Bantuan Pembangunan Resmi (ODA) yang diberikan oleh AS ke 155 negara penerima dari tahun 1960 sampai 2008, yang dianalisa dengan menggunakan random coefficient model, penelitian ini menemukan bahwa humanitarian theory dan domestic political theory lebih dapat menjelaskan kebijakan bantuan luar negeri AS selama hampir lima decade. Secara umum, AS lebih cenderung untuk memberikan bantuan luar negeri ODA ke negara-negara miskin dan/atau negara-negara dimana LSM-LSM AS banyak beraktivitas di negara itu. Model-model econometric yang digunakan juga menemukan bahwa ada variasi antar-negara dan antar-waktu dalam jumlah ODA yang diberikan AS. Rata-rata, negara- negara yang menerima bantuan ODA lebih besar pada tahun 1960an akan cendrung memiliki tingkat pertumbuhan bantuan ODA dari AS yang lebih kecil dari waktu ke waktu.

Kata kunci: ODA, US, Kontrol kepentingan, humanitarian, politik domestik, membangun model, *Random Coefficient Models*

Abstract

This article aims to test competing explanations about the US foreign aid policy, namely interest-driven theory, humanitarian theory, and domestic political theory. Using longitudinal data on the amount of Official Development Assistance provided by the US to 155 recipient countries from 1960 to 2008, analyzed using random coefficient models, the research found that humanitarian and domestic political theories can account for the US foreign aid policy to the recipient countries for almost five decades better than the interest-driven theory. Generally, the US were more likely to send aid to poorer countries and/or countries where the US-based NGOs were actively involved. The econometric models also show that there are some cross-sectional and temporal variations in the aid. On average, countries receiving high amount of aid in the 1960s tend to have lower annual growth rate in the money they received from the US.

Keywords: ODA, US, Interest-Driven, Humanitarian, Domestic Politics, Growth Models, Random Coefficient Mode

Introduction

What explains the variation in the amount of US foreign aids received by developing countries annually? Is the decision about foreign aids shaped by strategic interests, humanitarian factors or the activities of particular domestic political actors in the recipient countries? In this paper, I will attempt to reexamine the debate on US foreign aids and test three arguments brought up in the literature: interest-driven theory, humanitarian theory and domestic political theory. This paper will proceed by firstly laying out the three literature on US foreign aid policy. It is followed by some theoretical arguments of the three theories and their expectations about US foreign aids. In the method section, I will describe the data and estimation strategy. This will be followed by result section. In the conclusion, I summarize the main findings and their implications for future research.

Literature Review: Three Models of US Foreign Aid Policy

The politics of US foreign aids is a complex topic that has generated a wealth of studies. In general, there are three big theories for why the US gives foreign aids to another country. The first theory can be called interest-driven aid theory. This theory generally argues that foreign aid is one of foreign policy intruments used to advance the interest of aid providers (the US) in the targetted countries (Hook 1995; Palmer, Wohlander, and Morgan 2002). Some scholars such as McKinlay and Little (1977; 1979) for example, who investigated US official bilateral economic aid from 1960-1970 found that US foreign aid policy was consistent with what they called donor interest model. A comparative analysis of foreign aid policy of some industrial countries supports McKinlay and Little's findings: the providers give aid either to advanced their interest or maintain the loyalty of former colonies (Schraeder, Hook and Taylor 1998).

There are three variables commonly employed by scholars in this theory: ally, democracy and strategic region. First, due its security commitment, the US is more likely to disburse its foreign aids to allies. This is best exemplified by US annual foreign aids to Israel (Sharp 2015). Second, because of its belief that democracies are more peaceful and important to US security (Russett 1993), US is expected to give more aids to promote and support democratization process in developing countries. Thus, it is expected that the amount of money given to non-democracies (including nascent democracies) is higher than that given to stable democracies. Finally, because US interests differ regionally, we might expect that there will be some variations in the number of foreign aids given by the US to these regions. Strategically, Middle East is the most important region for the US because the region consists of militarily balanced countries and prone to conflicts. US also has some allies there and needs the oil from the region to support its economy. Some scholars have documented US dependence on oil from the Middle East and this what drives US increasingly deep involvement in the conflict (see e.g., Jones 2012). In addition, compared with other regions, the competition of regional powers in the region is very tight. This is especially true since the end of the Cold War where great powers such as Russia and UK began to withdraw themselves from the region. The region was set to be unstable in the post Cold War era. US needs to be involved more deeply to protect its oil interests and also its allies in the region. From this explanation, we can

generate hypothesis on interest-driven theory that:

H1: The Amount of US foreign aids given to US ally will be higher than the amount of foreign aids given to non-ally.

H2: The amount of US foreign aids to non-democracies will be higher than the amount of foreign aids given to stable democracies.

H3: The amount of US foreign aids given to countries in the Middle East will be higher than the amount of foreign aids given to countries in other regions.

The second theory of aid provision is humanitarian theory. This theory explains foreign aid policy from the perspective of recipient's need. This theory argues that the US disbursed foreign aids due to humanitarian factors such as humanitarian crises or poverty. Some research on foreign aids, for example, found that even during the Cold War period when strategic-security interests dominated major powers' foreign policy, humanitarian factors had become the main driver for US foreign aids (McCormick and Mitchell 1988; Meernik, Krueger, and Poe 1998; Lai 2003). This trend has even been more obvious after the Cold War ended when global focus shifted to development issues (Meernik et al 1998). Thus, this theory expects that:

H4: the amount of US foreign aids to a poorer country is higher than the amount of foreign aids given to a richer country.

The third theory explaining foreign aids is domestic political theory. This theory sees the important role played by domestic political actors especially NGOs whose field experience allows them to speak authoritatively about the situations in a foreign country (DeMars 2005). Because of their access to ciritical information on domestic situations in a foreign country, these NGOs are able to form close partnership with donor government in need of intimate information about the foreign country, thus enable the NGOs to shape donor's foreign aid policy (Kim 2014; Lewis 2007). However, to what extent NGOs can influence governments depend on their credibility as sources of information and their effectiveness as aid operators. By establishing reputation as an experienced agent in one particular issue in developing country, these NGOs can gain governments' trust and because of this trust, they can easily influence governments to disburse some money to support their works in developing countries. Thus,

H5: the amount of US foreign aids will increase as the number of US-based NGO operations in a country increases.

Data and Methods

To test the three theories, I use data set provided by Youngwan Kim (2014). The data set was provided through Harvard Dataverse and originally used for his article published in *Foreign Policy Analysis*. The data set is longitudinal data which covers 155 countries to which the US gave foreign aids from 1960-2008. The total numbers of observations are 7,595. Due to some missing data, the final observations used to fit the full model are 5,669. The unit of analysis is country-year (repeated measure within country). The dependent variable in this research is the amount of US Official Development Assistance (ODA) received by a particular country in a particular year (measured in constant 2006 dollars). However, because the data are very skewed, I log-transform the variable to normalize the data. The data were originally collected by Kim from the OECD database. Net disbursement of ODA is widely used as the measure of foreign aid in the literature since this measure can capture the actual annual amount of foreign aid given by donors (Feyzioglu, Swaroop, and Zhu 1998; Easterly 2003; McGillivray 2003). The main independent variables are the recipient's democracy status, recipient's alliance status, regional dummies for Middle East, recipient's income per capita, and the number of NGO operations in a recipient country. These variables represent the test for the three theories of US foreign aids.

The recipient's democracy status is measured based on its polity scores. This is unit level data (level-1) rather than cluster level data because the status of democracy of a country may change at a particular time within the time span of the study. The data used here is Polity IV (Marshall, Gurr and Jagger 2014) which scores a country's level of democracy according to some indicators such as government composition, elections, political participation and so on. The score varies from -10 representing full authoritarianism to 10 representing full democracy. I generate dummy variable of country democracy status based on these scores. For countries whose polity scores are 6 or more (>= 6), I categorize them as stable democracy (coded 1) and other (non-democracies) coded 0. Based on interest-based theory, we should expect negative correlation between foreign aids and the democracy status of recipient country (non-democracies received more money). However, due to the possibility of endogeneity relation between democracy index and foreign aids (Knack 2004), I would lag a country's democracy status by one year. Thus, it should be clear that it

is democracy that affects the number of foreign aids disbursed rather than the other way round.

Alliance status data comes from Correlates of War Project (COW) Formal Alliance data set. These data categorize alliance status into four groups: non-alliance (coded 0), entente (coded 1), neutrality pact (coded 2), and defense pact (coded 3). Entente generally refers to informal alliance between the US and another country. This informal alliance generally comes in the form of mutual understanding on some international issues. But, there is no obligation of one country to do something to other country under certain situations. In Neutrality pact, countries are *formally* committed to doing *nothing* in case a member of the pact goes to war against another country (be it outsider or another member of the pact). The main purpose of this pact is to prevent a country (usually a powerful country) to help another country (usually a weaker country) in case there is a conflict or war with a member of the pact. Finally, defense pact refers to a *formal* commitment of members to help each other in case one of them is attacked by outsiders. NATO is an example of this kind of pact (Gibbler 2009). This variable is unit level because the status of alliance can change over time. Because I am interested in seeing the effect of being defense US ally only, I dummy-code the variable where member of defense ally = 1, else = 0. As the interest-driven theory suggests, I expect a positive association between the variable of alliance and the amount of US foreign aids received by the country.

The data on recipients' income per capita were originally obtained from United Nations Development Program (UNDP). The original measure of the variable is US$. However, due to the skewed nature of the data, I use logarithmic transformation of the data. This variable captures humanitarian need of a country for foreign aids. Because poorer countries need more foreign aids, humanitarian-based theory predicts that the amount of US foreign aids will increase for the country with lower GDP per capita. Thus, we expect negative correlation between this variable (GDP per capita) and the amount of US foreign aids.

The data on the number of NGO operations in a recipient country also come from Kim (2014). These data were collected from the National Center for Charitable Statistics (NCCS, http://nccs.urban.org/), which provides a comprehensive list of US-based NGOs registered to the Internal Revenue Service (IRS). There are 40 NGOs out of 114 big

NGOs included in the data set due to information availability. Kim (2014) coded the information about the field operations of NGOs provided by their web sites, annual reports and other piece of information. He then combined the numbers of field operations of all 40 NGOs in a recipient country. As the domestic political theory suggests, the amount of US foreign aids to a country increases as the number of US-based NGO operations in the country increases. Thus, we expect positive association between the amount of US foreign aids and the number of US-based NGO operations in recipient country.

The cluster level variable that becomes the main independent variable is Middle-East dummy. This variable captures the expectation of interest-driven theory that Middle-East countries are important for American strategic and economic interests. Because Middle-East countries are expected to receive more US foreign aids than non-Middle East countries, I expect a positive association between this variable and the amount of US foreign aids received by a country.

To avoid spurious relations, I also include a standard control variable, that is the total population of the recipients. I also log-transform the data to avoid extreme variation and skewness. The inclusion of this variable captures the different impacts of aids to recipient countries. Countries with more population will need more aids than those with small populations. The data were collected by Kim (2014) from World Development Indicators provided by the World Bank. I expect positive association between this variable and the amount of foreign aids given by the US.

Because the data are clustered, with year treated as level-1 and country as level-2, and I am also interested in measuring the impact of cluster level variable on the dependent variable, I use multilevel modeling technique. Multilevel modelling technique is an appropriate technique to analyze growth model (Raudenbush and Bryk, 2002). At level-1, the amount of US foreign aids received by a particular country is represented by country's growth trajectory that depends on its own unique sets of parameters. These individual country growth parameters become the outcome variable at level-2 in which it depends on country-level variable (region). The level-2 equations create different growth curve for each country because the level-2 variable distinguishes country from each other. Because I am interested in changes (growth) in foreign aids received by a country since 1960, I center the intercept at 1960. By centering intercept at this year, I

can see to what extent there have been changes in the US foreign aids received by countries since 1960. I also grand-mean center the variable of democracy and defense_ally because I want to measure the impact of being both democracy and non-democracy and being member and non-member of US defense alliance on the amount of US foreign aids they received. Finally, I also grand-mean center the variable of population and GDP per capita to enable common sensical interpretation of the results. Finally, to overcome the issues of non-normality of the residuals at both level-1 and level-2 and of heteroscedasticity of level-1 residuals, I use robust standar errors (clustered on countries). I specify level-1 model this way*:

$$Y_{ti} = \pi_{0i} + \pi_{1i}*(\text{year-1960}) + \pi_{2i}*([\text{year-1960}]^2) + \pi_{3i}*(\boldsymbol{ally}) + \pi_{4i}*(\boldsymbol{dem}) + \pi_{5i}*(\boldsymbol{lngdp}) + \pi_{6i}*(\text{ngo}) + \pi_{7i}*(\boldsymbol{lnpop}) + e_{ti}, \quad \text{.....(1)}$$

Where Y_{ti} is the (log) amount of US foreign aids received by a country i in a given t year. π_{0i} is the intercept or the amount of US foreign aids received by countries. π_{1i} is the annual foreign aids slope or rate of change parameter. π_{2i} is the slope for quadratic year variable to capture the possible acceleration or deceleration in the annual growth of US foreign aids. $\pi_{3i} - \pi_{7i}$ are slopes or rate of change for all independent variables (main independent variables and a control variable). e_{ti} is the residual deviation of each time (year) from the estimated trajectory. The level-2 model consists of regional Middle East dummy which is the characteristics of countries:

$$\pi_{0i} = \beta_{00} + \beta_{01}*(\text{mideast}) + r_{0i} \quad \text{.....(2)}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}*(\text{mideast}) + r_{1i} \quad \text{.....(3)}$$

Where β_{00} is the average (log) amount of US foreign aids given to developing countries in 1960. β_{01} is the coefficient of the impact of being countries in the Middle-East on US foreign aids. β_{10} is the average annual growth of US foreign aids and β_{11} is the coefficient capturing the effect of being countries in the Middle-East on the annual growth rate of US foreign aids.

Result and Analysis

The analysis in table 1 shows several interesting patterns regarding US foreign aids to developing countries. First, there is a small instantaneous growth in the

* Due to space limitation, I just write the full model (column 5, table 2) without enumerating level-1 predictors with no random effects. Bold italic variables indicate the grand-mean centering.

amount of foreign aids US gave to developing countries in 1960. As shown in the model 3 (basic model including year variable), the rate of growth of US foreign aids to developing countries is only 7.7 percent annually. When we include non-linear effect of time (year squared) to see whether there is acceleration or deceleration in the growth of the amount of US foreign aids given to developing countries (model 4-5), we find that the linear effect of time (year) changes direction. However, the non-linear effect of year shows positive significant sign indicating that there is acceleration in the declining amount of US foreign aids since 1960. However, due to a lack of control variable, we may suspect these unstable parameter estimates.

Figure1. Variation in the Amount of U.S. Foreign Aids Across Countries

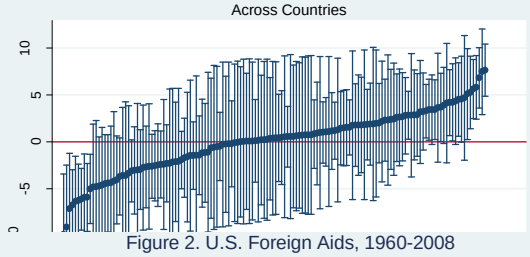
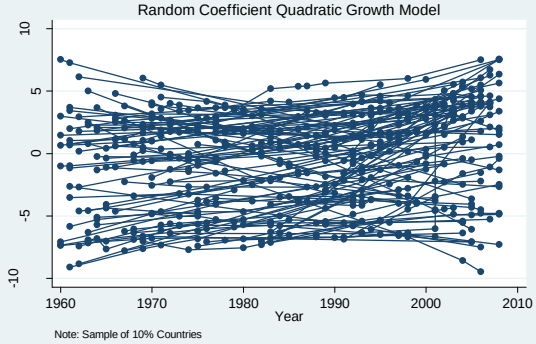


Figure 2. U.S. Foreign Aids, 1960-2008



Second, as shown in Figure 1, there is significant variation in the amount of US foreign aids among countries and across years. The variance of the adjusted mean of the amount of US foreign aids (τ_{00}) is positive significant in all models. This shows that the amount of US foreign aids varies significantly among countries in 1960. Similarly, the growth rates of US foreign aids also varies greatly among them. When we allow time variable (year) to vary, we see that the variance of year is positive significant in all models 3-5.

Third, there is negative covariance between the intercept and the time variable (year) in models 3-5. This indicates that countries receiving higher amount of US foreign aids in 1960 tend to have lower-than-average growth in their annual receipt of US foreign aids. Figure 2 to some extent shows this trend. Countries with high amount of US foreign aids receipts in 1960 tend to have flatter slope compared with those receiving lower amount of aids in 1960. Countries with highest amount of US foreign aids in 1960 even have negative slope, thus indicating that they received lesser amount of US foreign aids over time.

Finally, there is also negative significant covariance between year and year squared variables. This is displayed in model 5. In general, this shows that though there is overall growth in the amount of US foreign aids to developing countries

over the years, there is deceleration in the growth over time. Generally, around 55 percent of the variation in the amount of US foreign aids to developing countries over the years can be accounted for by the linear and non-linear effects of year.

Table 1
Models of US Foreign Aids, 1960-2008: Basic Models

	(1) model1	(2) model2	(3) model3	(4) model4	(5) model5
year		0.0771***	0.0771***	-0.0452***	-0.0449
		(0.0111)	(0.0111)	(0.0032)	(0.0318)
year_sq				0.00260***	0.00259***
				(0.00066)	(0.00066)
_cons	-1.470***	-3.283***	-3.282***	-2.345***	-2.346***
	(0.268)	(0.398)	(0.398)	(0.404)	(0.404)
Var(cons)	10.875***	10.902***	23.792***	23.806***	24.140***
	(0.758)	(0.757)	(1.864)	(1.864)	(2.083)
Var(residuals)	12.556***	11.390***	7.836***	7.628***	5.683***
	(0.723)	(0.757)	(0.482)	(0.454)	(0.348)
Var(year)			0.018***	0.018***	0.146***
			(0.002)	(0.002)	(0.019)
Cov(cons,year)			-0.486***	-0.486***	0.993***
			(0.068)	(0.068)	(0.199)
Var(year_sq)					0.000006***
					(0.000)
Cov(cons,year_sq)					0.0117***
					(0.004)
Cov(year,year_sq)					-0.003***
					(0.004)
LL	-20262.804	-19907.659	-18784.511	-18688.695	-17849.869
AIC	40531.608	39823.318	37581.022	37391.389	35719.739
BIC	40531.608	39823.318	37581.022	37391.389	35719.739
N	7441	7441	7441	7441	7441

Note: Robust standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2 displays the main results of this research. Models 1-3 exhibit direct test of the three theories on US foreign aids. Each model represents each theory being tested. Model 1 tests interest based theory. There are three variables of interest in this model: ally, democracy and mideast_year. Generally, the average mean of US foreign aids given to developing countries, controling for the proportion of US

defense allies and democracies in 1960 is US$ 132 thousands. The variable of ally captures the impact of being a US defense ally on the amount of US foreign received by the countries. As the theory predicts, there should be positive signficant relationship between being a US ally and the amount of aids received. A cursory look at the coefficient of ally indicates that there is no empirical support for theory. Though the coefficient is positive, thus indicating a larger amount of aids these countries might received compared to non-US allies, the large p-value for the variable signifies that the coefficient might be due to random errors.

The variable of democracy tests whether US tended to provide more money to promote democracies, thus giving more aids to non-democracies than to democracies. As the theory predicts, there is negative significant relationship between being a stable democratic country and the amount of US foreign aids received by the country. As the proportion of stable democracies increases one unit, the amount of US foreign aids given to developing countries decreases around 132 percent. However, in the full model, the significance of the coefficient disappears indicating that the estimate is not stable. And because the full model is the best model (based on model fit criteria), we have some reservations about the empirical support for this hypothesis.

The variable of *mideast_year* is the cross-level interaction between *mideast* and *year* variables. This term captures the strategic significance of countries in the Middle East as suggested by interest-based theory. The term measures if countries in the Middle East received more US foreign aids annually compared to countries outside of the Middle East. Contrary to the expectation of the theory, there is negative significant relationship between *mideast_year* and *lnaids*. Instead of receiving higher amount of annual aids from the US, the countries in the Middle East precisely received 18 percent less US aids annually compared with non Middle East countries.

Table 2.

Three Models of US Foreign Aids, 1960-2008

	(1) Interest	(2) Human	(3) Domestic Politics	(4) Full Model
year1960	-0.0581	0.105*	-0.0363	0.129**
	(0.0322)	(0.0445)	(0.0318)	(0.0461)
year_sq	0.00299***	0.000294	0.00128	-0.000840
	(0.000680)	(0.000799)	(0.000694)	(0.000811)
ally	0.317			-0.688

	(0.738)			(0.793)
democracy	-1.323**			-0.427
	(0.411)			(0.369)
lnpop_mean	0.644***	0.550***	0.255*	0.0290
	(0.127)	(0.124)	(0.128)	(0.146)
mideast	1.273			1.393
	(1.122)			(1.576)
mideast_year	-0.120***			-0.0655
	(0.0322)			(0.0384)
lngdp_mean		-0.790***		-0.663**
		(0.215)		(0.209)
ngo			0.532***	0.501***
			(0.0878)	(0.0770)
_cons	-2.023***	-4.074***	-2.506***	-4.831***
	(0.392)	(0.659)	(0.400)	(0.779)
var(year)	0.016***	0.025***	0.021***	0.029***
	(0.0022)	(0.0045)	(0.0027)	(0.0052)
var(cons)	17.713***	32.654***	22.206***	38.627***
	(1.887)	(6.051)	(1.997)	(6.5470)
cov(cons_year)	-0.410***	-0.799***	-0.585***	-0.990***
	(0.055)	(0.1576)	(0.0676)	(0.1764)
var(Residual)	7.692***	7.676***	7.587***	7.475***
	(0.463)	(0.53)	(0.43)	(0.51)
LL	-18207.7	-14277.5	-18160.0	-14192.2
aic	36439.3	28572.9	36338.1	28412.4
bic	36522.0	28632.7	36400.1	28505.4
N	7254	5669	7254	5669

Robust standard errors in parentheses
* p<0.05, ** p<0.01, *** p<0.001

In model 2, I test humanitarian-based theory. There is one key variable examined here, that is income per capita (ln(GDP)). The variable is centered to its mean to ease the interpretation in the level-2 outcome. Humanitarian theory predicts that lower income countries are expected to receive more US foreign aids than middle or higher income countries. As the model 2 exhibits, the coefficient of income per capita is negative significant as expected by the theory. Controling for the population, each percent decrease in a recipient's GDP per capita is predicted to increase the amount of US foreign aids given to the country around 0.8 percent. Thus, there is an empirical support for humanitarian-based theory of US foreign aids.

Finally, model 3 tests domestic political theory of US foreign aids. As theory suggests, there should be positive significant relationship between the number of US-based NGO operations in a country and the amount of US foreign aids

received by the countries because more NGO operations increase the reputation and credibility of the NGOs as information provider and lobbyist, thus increases their influence on foreign aids policy. Consequently, we would expect that the amount of foreign aids disbursed to the countries in which the number of US-based NGO operations is higher will be higher as well. As model 3 shows, there is empirical support again for this theory. There is positive significant correlation between the number of NGO operations in a country and the amount of US foreign aids received by the country. Controling for the number of population, each additional increase in the number of NGO operations in a recipient country is predicted to increase the amount of US foreign aids to the country around 53 percent.

In general, only humanitarian and domestic political theories of US foreign aids are supported. The parameter estimates are stable even when we combine the model as shown in full model of US foreign aids (column 4). The coefficients of ln(GDP) and NGOs in the full model are slightly lower than those in model 2 and 3. However, they generally point to the same thing, that is, US foreign aids to developing countries are shaped by humanitarian and domestic political factors rather than (security) interest. In this model, we can also see that the rate of annual growth in US foreign aids to developing countries is around 13 percent.

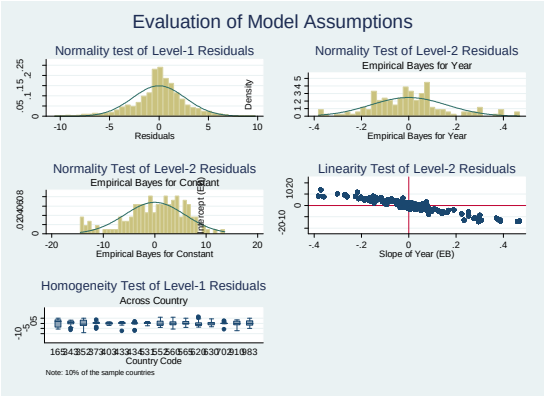
Regarding the model fit, the full model is the best among all other models. The deviance statistics (-2LL) shows that the deviance of the full model is the lowest among those of other models. The AIC and BIC of the full model are also the lowest among all other models. This indicates generally that the full model is the closest to the "true model" (Dziak et al 2012). Because I use robust standard errors, the parameter estimates in all the models are robust to any negative consequences of non-normality and heteroskedasticity of residuals. Model checking analysis also shows that errors at both level-1 and level-2 are independent of the predictors.

Conclusion

This paper starts from the question of what explains the variation in US foreign aids to developing countries over time. I test three models explaining US foreign aids policy to these developing countries. The first theory is so-called interest-based theory viewing US foreign aids as a function of national security interests defined more narrowly as having strategic benefits to the US. This theory predicts that the amount of US foreign aids

to US allies, non-democracies or countries in the strategic region such as Middle East will be higher than non-allies, stable democracies or countries outside the strategic region. These predictions are not empirically supported. The second theory, the so-called humanitarian-based theory, sees that US foreign aids to a particular country is based on humanitarian considerations such as poverty or protracted human sufferings. This theory predicts that the amount of US foreign aids to poorer countries will be higher than the amount disbursed to less poor countries. The theory's prediction is supported by the data. Finally, the last theory explaining US foreign aids is domestic political theory. This theory argues that the variation in US foreign aids to developing countries is affected by the actions of domestic political actors. Among domestic political actors interested in US foreign aids, NGOs is perhaps the most important ones. As an information provider as well as lobbyist, NGOs can influence the US government decision regarding the amount of aids. This theory predicts that the countries with more NGO's projects or operations tend to receive more aids than countries with less NGO projects. The theory's prediction is also supported by the fact.

However, the results of the analysis should be interpreted cautiously. There are two issues raised here. First, the data might be biased in favor of the two supported theories. In fact, the data of foreign aids here do not include development programs related to security support in developing countries such as funds for training armies, etc. OECD only collects aid data related to social, economic and political development, excluding military-related aids. Second, the indicator(s) representing key variables of each theory are chosen based on data availability. In fact, there are some other variables that might be more appropriate representation of the concept implied in each theory. For example, GDP per capita is not the only way to test humanitarian-based theory. While this variable might indicate the level of poverty, the variable of poverty index is a more relevant variable to be included in the model. In general, variables representing protracted human sufferings need to be created and these might be more appropriate variables to test.



Appendix

Descriptive Statistics

	mean	sd	min	max
lnaid	-1.47	4.84	-6.9	9
ally	0.19	0.39	0.0	1
lngdp	6.72	1.37	3.6	11
dem	0.47	0.50	0.0	1
ngo	1.98	3.25	0.0	25
mideast	0.13	0.34	0.0	1
lnpop	15.04	2.06	9.4	21
N	7595			

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