

Making Sense of the Dollars: What Does Aid Really Measure?

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What Does Aid Measure?

- Aid is a proxy for donor policy/attitudes toward developing countries (e.g., Stone(2008): increases in US aid are associated with higher approval rates for IMF programs and are subjected to less conditionality)
- Studies often measure the impact of aid flows on outcome variables (growth, regime change)
 - Aid may represent more than simply its dollar value
 - Omitted variables: may overestimate impact of aid dollars if they are correlated with important omitted variables
 - Policy implication: increasing the impact of aid may not be as simple as increasing the flow of dollars

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Aid and Growth

- Well established literature (e.g. Burnside and Dollar, 2000; Easterly et al 2004)
- Bearce and Tirone (2010): In post-Cold War period, within a given region and given year, a country that received more aid five years ago will grow more quickly
- **Key Question: Why did the country receive more aid than other countries in that region for that year?**
- Aid isn't manna from heaven - allocated across recipients for a reason
- Ignoring reasons behind allocation can introduce omitted variable bias into growth regressions
- Add variables explaining aid allocation to growth regressions

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Hypothesis

- As variables explaining aid allocation are added to the growth regression, the size and significance of the coefficient linking aid to growth will decrease.

Regressing Growth on Aid

	Model 1	Model 2
Development Aid(lag)		0.405**
		(0.02)
Income per capita(lag)	-0.479	-0.136
	(0.12)	(0.69)
Oil Revenue per capita	0.293*	0.309*
	(0.09)	(0.08)
Civil War	-1.705**	-2.001**
	(0.04)	(0.02)
Democratic Transition	-2.697*	-2.777*
	(0.08)	(0.06)
Democracy	0.149	0.108
	(0.42)	(0.56)
Trade Openness	0.004	0.007
	(0.57)	(0.36)
N	2250	2097

Dependent Variable is growth in GDP per capita; unit of analysis is country-year, 1992-2006. OLS; region and year fixed effects included but not shown, se clustered by recipient, p-values in parentheses.

Regressing Growth on Aid, Adding Disaster Measure

	Model 1	Model 2	Model 3
Development Aid(lag)		0.405**	0.338*
		(0.02)	(0.06)
Disaster(lag)			0.804
			(0.12)
Income per capita(lag)	-0.479	-0.136	-0.164
	(0.12)	(0.69)	(0.63)
Oil Revenue per capita	0.293*	0.309*	0.303*
	(0.09)	(0.08)	(0.08)
Civil War	-1.705**	-2.001**	-2.040**
	(0.04)	(0.02)	(0.02)
Democratic Transition	-2.697*	-2.777*	-2.801*
	(0.08)	(0.06)	(0.05)
Democracy	0.149	0.108	0.125
	(0.42)	(0.56)	(0.50)
Trade Openness	0.004	0.007	0.007
	(0.57)	(0.36)	(0.31)
N	2250	2097	2097

Dependent Variable is growth in GDP per capita; unit of analysis is country-year, 1992-2006. OLS; region and year fixed effects included but not shown, se clustered by recipient, p-values in parentheses.

Regressing Growth on Aid, Adding Economic Determinants of Aid

	Model 1	Model 2	Model 3	Model 4
Development Aid(lag)		0.405**	0.338*	0.315
		(0.02)	(0.06)	(0.18)
Disaster(lag)			0.804	0.823
			(0.12)	(0.11)
Migrants Abroad(lag)				0.271*
				(0.07)
Trade(lag)				-0.364
				(0.14)
Income per capita(lag)	-0.479	-0.136	-0.164	0.131
Oil Revenue per capita	0.293*	0.309*	0.303*	0.381*
Civil War	-1.705**	-2.001**	-2.040**	-2.128**
Democratic Transition	-2.697*	-2.777*	-2.801*	-2.889**
Democracy	0.149	0.108	0.125	0.185
Trade Openness	0.004	0.007	0.007	
N	2250	2097	2097	2054

Dependent Variable is growth in GDP per capita; unit of analysis is country-year, 1992-2006. OLS; region and year fixed effects included but not shown, se clustered by recipient, p-values in parentheses.

Regressing Growth on Aid, Adding Strategic Determinants of Aid

	Model 1	Model 2	Model 3	Model 4	Model 5
Development Aid(lag)		0.405**	0.338*	0.315	0.266
		(0.02)	(0.06)	(0.18)	(0.35)
Disaster(lag)			0.804	0.823	0.835
			(0.12)	(0.11)	(0.11)
Migrants Abroad(lag)				0.271*	0.284*
				(0.07)	(0.07)
Trade(lag)				-0.364	-0.376
				(0.14)	(0.16)
Colony					-0.317
					(0.69)
US Military Assistance(lag)					0.016
					(0.69)
Income per capita(lag)	-0.479	-0.136	-0.164	0.131	0.121
Oil Revenue per capita	0.293*	0.309*	0.303*	0.381*	0.374**
Civil War	-1.705**	-2.001**	-2.040**	-2.128**	-2.193**
Democratic Transition	-2.697*	-2.777*	-2.801*	-2.889**	-2.912**
Democracy	0.149	0.108	0.125	0.185	0.170
Trade Openness	0.004	0.007	0.007		
N	2250	2097	2097	2054	2054

Dependent Variable is growth in GDP per capita; unit of analysis is country-year, 1992-2006. OLS; region and year

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Conclusions

- Foreign aid may serve as a proxy for many variables not usually included in aid/growth regressions
- Omitted variables are associated with both increased aid flows and increased growth
- If we fail to account for *why* countries receive aid, we may overestimate the impact of aid dollars
- Next steps: other output measures (e.g. democratization, violence); interactive effects

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