Aid Effectiveness: Human Rights as a Conditionality Measure

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Outline

- Motivation
- Introduction
- This paper / Results

- Literature
- Theory
- Data & Measurement
- Econometric Specification
- Results
- Conclusion

Motivation

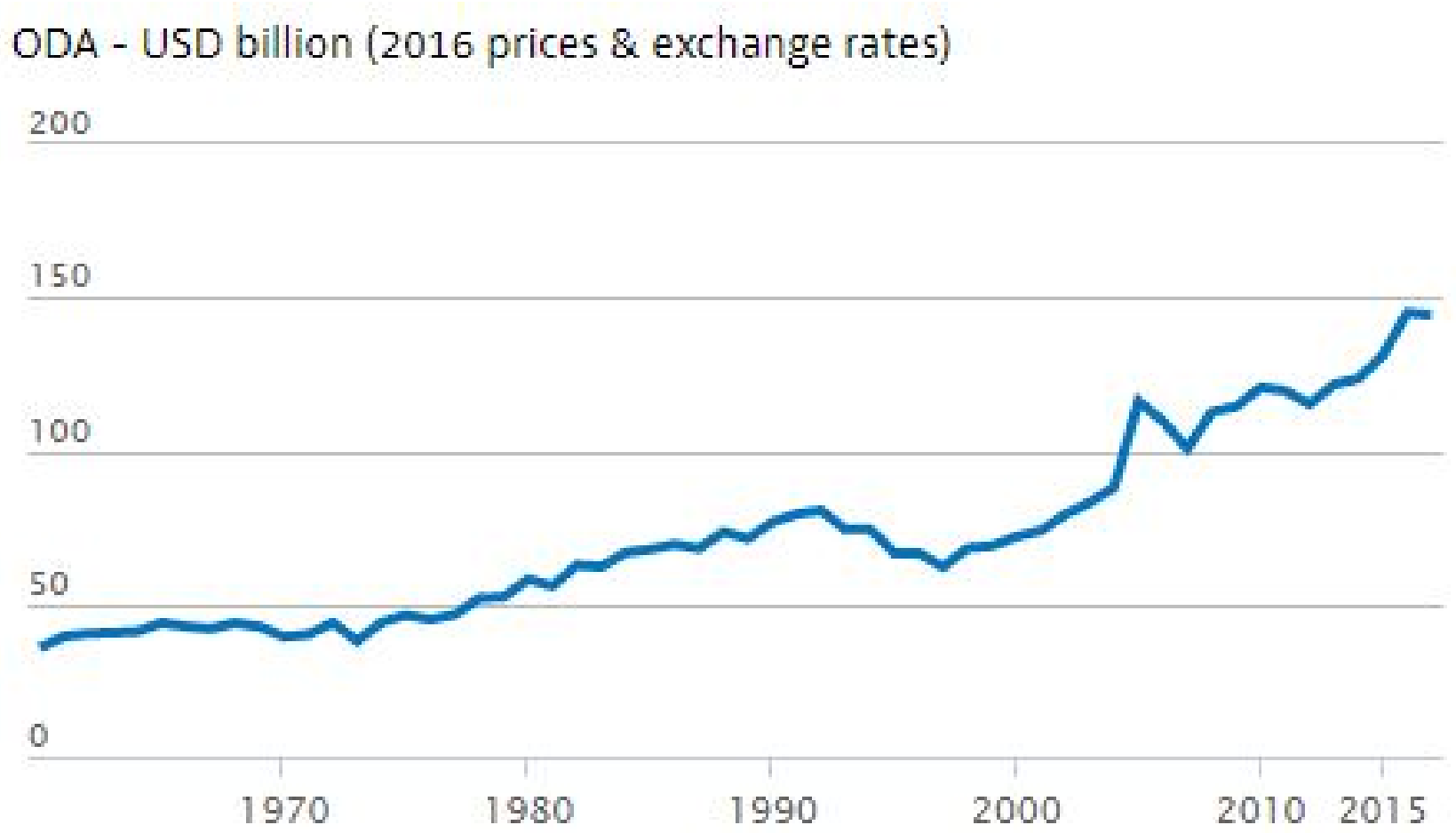


Figure 1: Official development assistance (ODA)

Motivation

- $142.6 billion allocated in 2016 - a rise of 7.1 per cent compared to 2015, after stripping out inflation and refugee costs

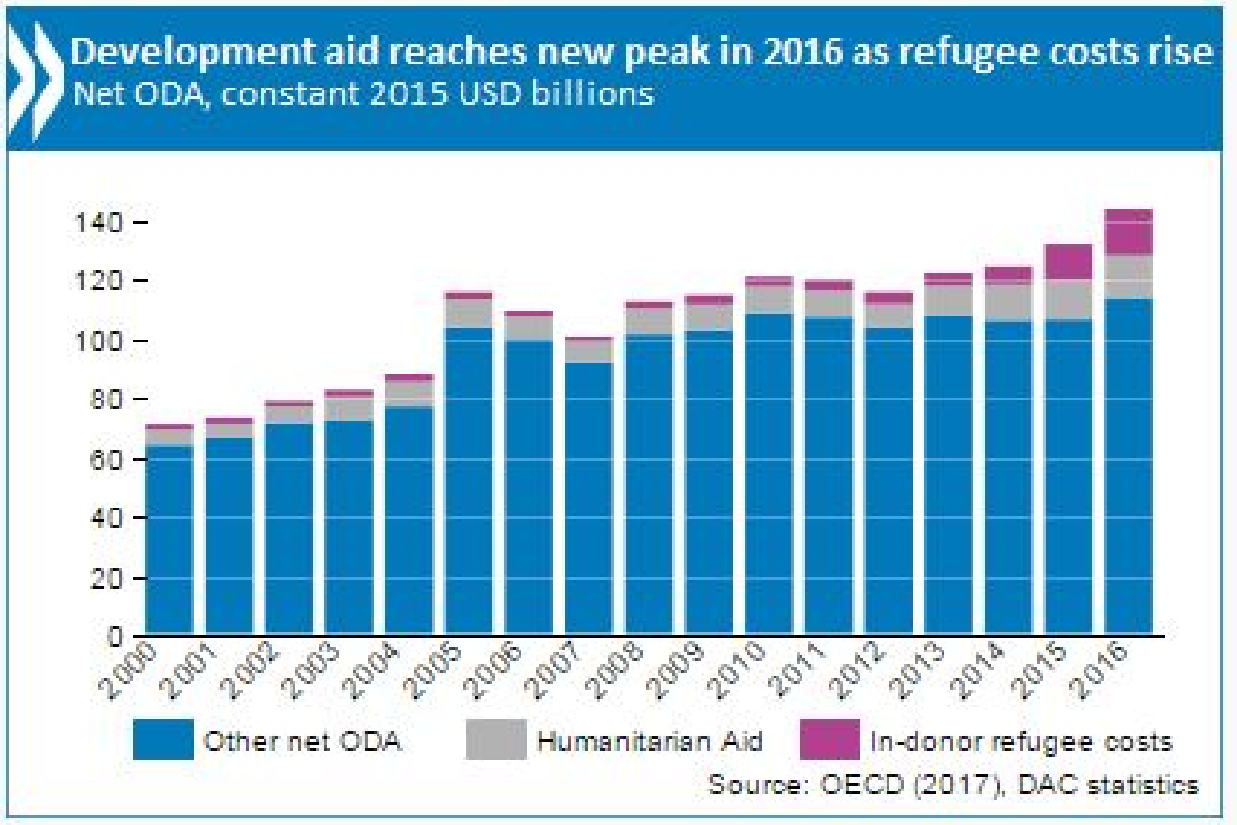
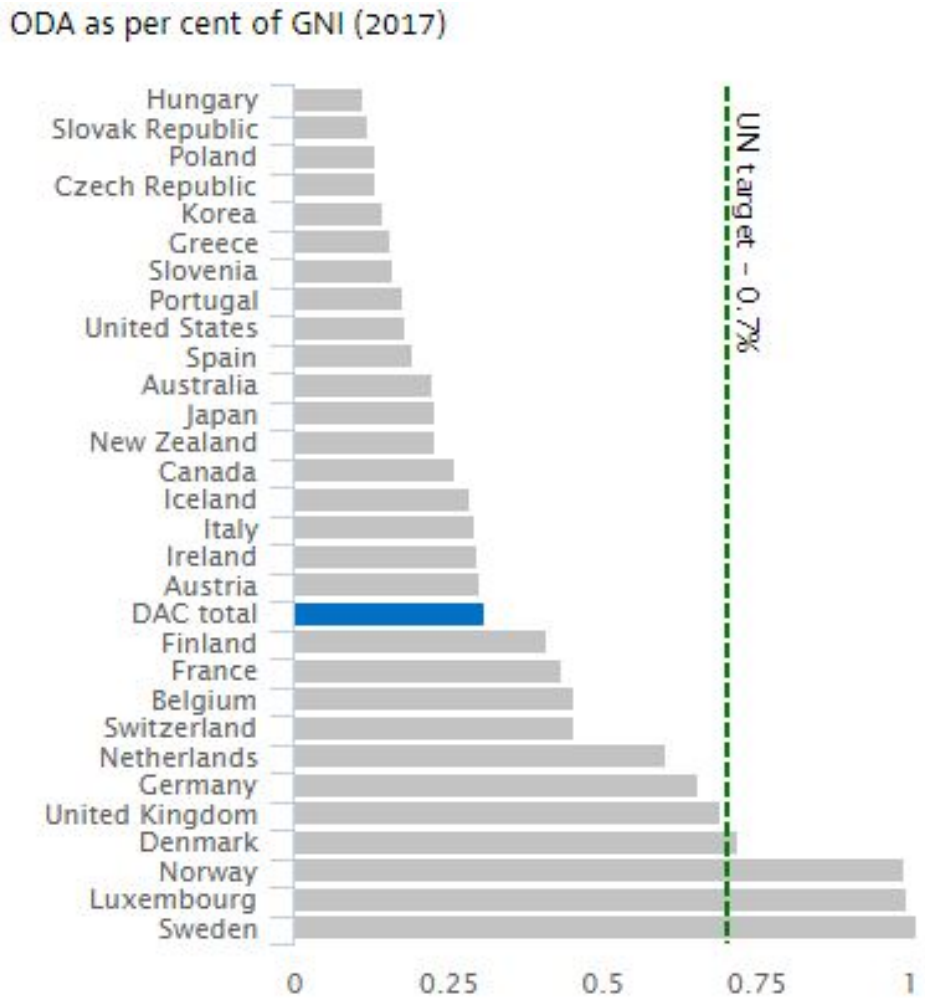


Figure 2: Official development assistance (ODA)

Motivation

- In 2017 few donor countries met the UN target of spending 0.7 percent of Gross National Income



Motivation

The conditionality hypothesis proposed by Burnside and Dollar (2000) suggests that aid is only effective in augmenting growth in the presence of a sound policy environment within the recipient country. This hypothesis was so influential that its policy recommendation was used to provide aid conditional upon recipient country domestic policies.

Gap

However, beyond the visible passion and dedication surrounding aid effectiveness, research has yet to produce a consensus regarding whether or not aid provides any favourable effects at all.

This paper

- The original Burnside and Dollar (2000) article used a policy variable composed of three policy dimensions: the governments budget surplus for fiscal policy, the inflation rate for monetary policy and the Sachs Warner index for openness for trade policy.

Aims

We accept (with some reservations) the original conditionality variables, but we also argue that there is a strong case for use of more political and economic indicators of governance, in addition to the above.

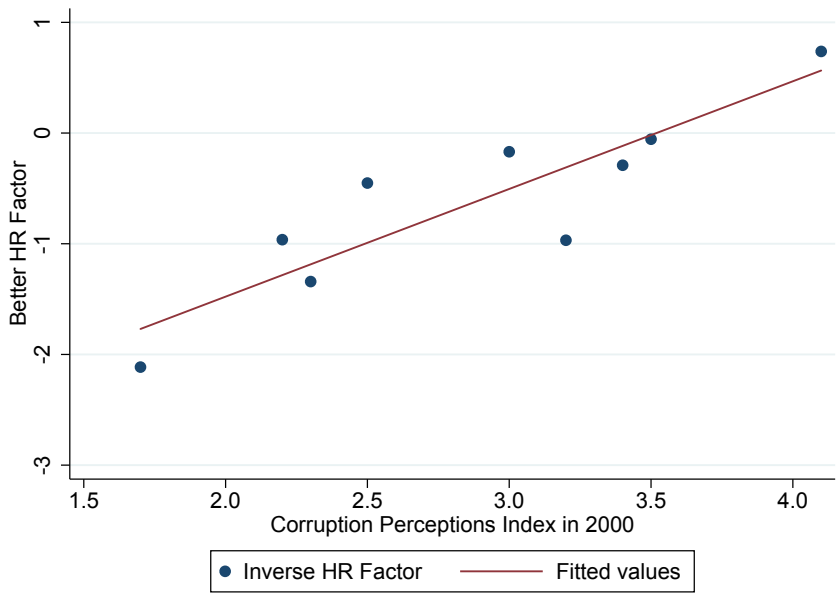
This paper

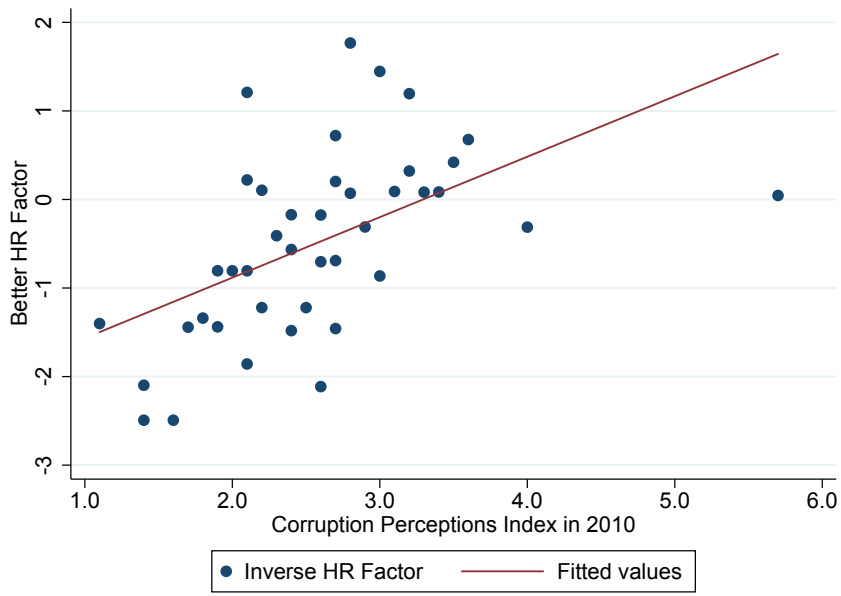
Contribution

- In this paper, for the first time in the development economics literature, we make extensive use of international comparative indices of human rights (HR) provision, which are now available for almost all countries since 1980.
- We develop an illustrative theoretical model of corruption and repression, and show that unconditional aid can weaken the bargaining position of workers vis-a-vis the ruling oligarchs, undermining the contribution of aid to growth.

This paper

* Better HR provision is, indeed, closely linked to less corruption





- Thus, we propose a modified "new conditionality"

This paper: Results

- We re-assessed the conditionality hypothesis by stressing that the non-income dimension of economic activity as an additional channel of economic growth in countries where the reliance on official sources of development finance is significantly higher.
- The results strongly support Sen (2001)'s development as freedom hypothesis, as well as providing a strong, modified variant on Burnside and Dollar (2000)'s aid conditionality finding. In particular, the interaction of ODA variable with measures of human rights on GDP growth, makes our results more meaningful and significant, with remarkably consistent results across regressions, as other socioeconomic variables and even conflict variables are introduced.
- For every 1% increase in aid, ln(NetODA), there is an increase of about 0.02 percent in the rate of per capita GDP growth.

Outline

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- Results
- Conclusions

Literature

- The aid effectiveness literature is grounded in models of growth and development.
- The first conditional convergence model is Mankiw et al. (1992), in which per capita GDP converges on relative levels.
- Burnside and Dollar (2000) have based their analysis upon the Barro (1990) model which is a modified version of the endogenous growth model that allows for the presence of government activity -i.e. $y = AK^{\alpha}G^{1-\alpha}$, where G is government expenditure.
- Burnside and Dollar (2000) argue that the convergence result has been difficult to identify due to the persistence of subsistence consumption and subsequent low average propensity to save.

The importance of Aid

- This low propensity to save is the theoretical foundation for the role of aid, justified through the Barro (1990) government consumption mechanism (the presence of policy and institutional distortions).
- Consequently Burnside and Dollar (2000) base their growth model on this theory of economic growth whilst the main innovation consisted of the **introduction of an aid-policy interaction term** to account for the above mentioned distortions.

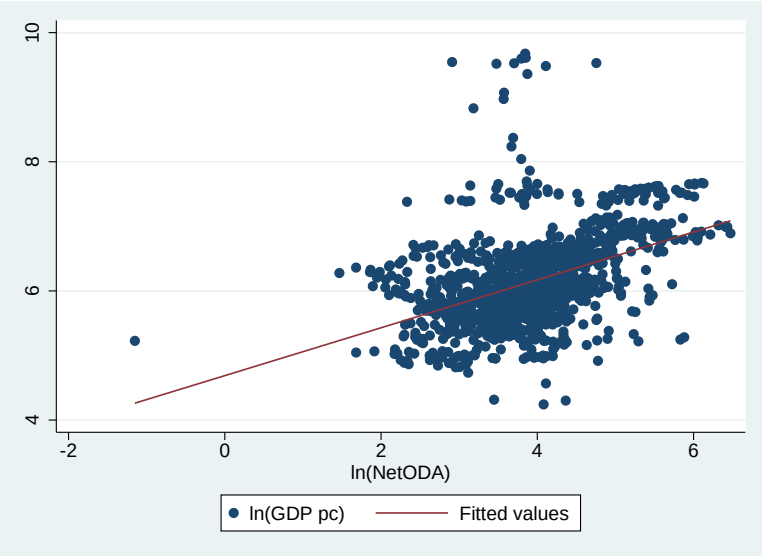
The importance of Aid

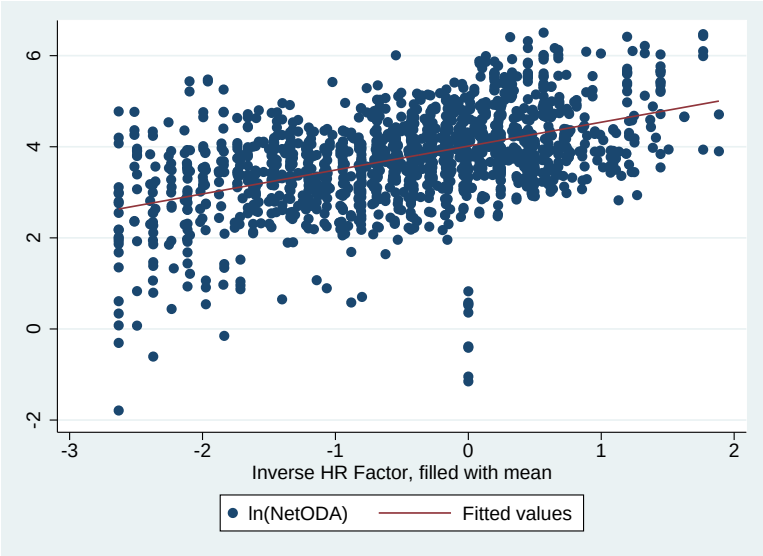
- Burnside and Dollar (2000) used a panel of 56 countries
  * two equations specified:
  (1) the effect of aid on growth
  (2) model the allocation of aid.
- The primary finding was that the coefficient of the aid-policy interaction term was positive and statistically significant across a number of alternative specifications whereas the coefficient of aid was not.
- This led to **the policy recommendation** that although aid may have a minor impact on growth across the board this impact is greatly improved.

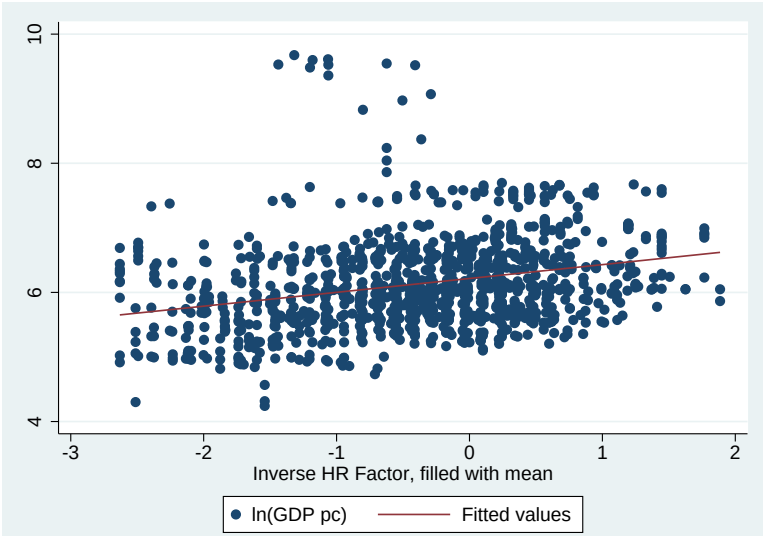
The importance of Aid

- Dalgaard and Hansen (2001) critically analysed the Burnside and Dollar (2000) paper and suggested that the conditionality conclusion was highly sensitive to sample choice.
- Dehn and Collier (2001) suggested that the failure of Burnside and Dollar (2000) to explicitly account for shocks was a considerable oversight.
- Mosley et al. (2004): the endogeneity of policy stipulates that policy areas such as corruption, inequality and the composition of public expenditure in particular have a high influence on pro-poor growth.
- Combes et al. (2016) show how aid inflows may cause structural shifts (shocks) in developing countries due to aid dependency. A similar study that focuses on tax revenue is Crivelli and Gupta (2016).

Aid Effectiveness In Practice







Theory

Our theoretical framework is one of corruption and repression. Repression facilitates corruption.

Gangster boss with cigar. Engraved style. Vector.

Theory

Our growth model is intermediate between convergent and endogenous growth. When $a = \frac{1}{2}$, then we have endogenous growth.

$$Y_t = BL_t^{\frac{1}{2}} K_t^{\frac{1}{2}} G_t^a e^{gt}. \quad (1)$$

*[For simplicity set L=1, B=1, g=0]

$$Y_t = K_t^{\frac{1}{2}} G_t^a. \quad (2)$$

* K is private capital, available at World market with price r and depreciation rate δ: G is a public good, provided by the Oligarchs.
* Oligarchs' income derives from a tax share T on capital income
* However, the oligarchs choose to consume proportion γ of their income, while only reinvesting share $(1 - \gamma)$.

Theory

*In steady state equilibrium we have

$$Y = (1 - T) \frac{G^{2a}}{2(r + \delta)}. \tag{3}$$

*If we introduce aid as a share θ of public good spending, then we derive

$$G^{1-2a} = \left(\frac{1 - \gamma}{1 - \theta} \frac{T}{2} \right) \frac{1 - T}{2(r + \delta)^2}. \tag{4}$$

*Hence steady state income is

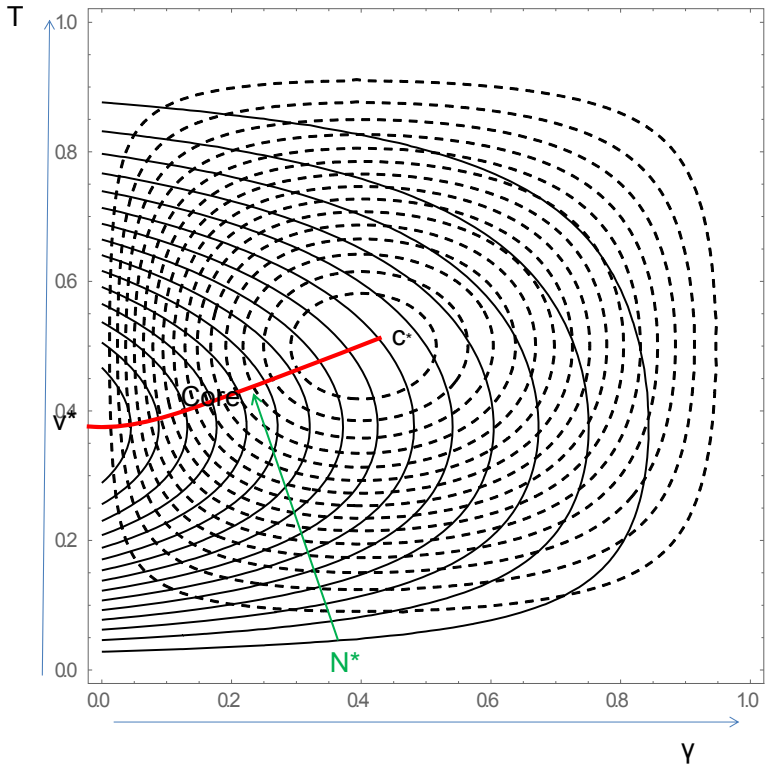
$$Y = (r + \delta) \left(\frac{(1 - T)}{2(r + \delta)^2} \right)^{\frac{1}{1-2a}} \left(\frac{1 - \gamma}{1 - \theta} \frac{T}{2} \right)^{\frac{2a}{1-2a}} \tag{5}$$

Theory

There is conflict of interests between workers and oligarchs. In our simple model, workers are happy to pay some taxes, in order to fund the public good. Likewise, oligarchs are happy to invest up to a point in a public good, which raises the long-term taxpaying potential of the economy, as long as they are consuming some of that tax revenue.

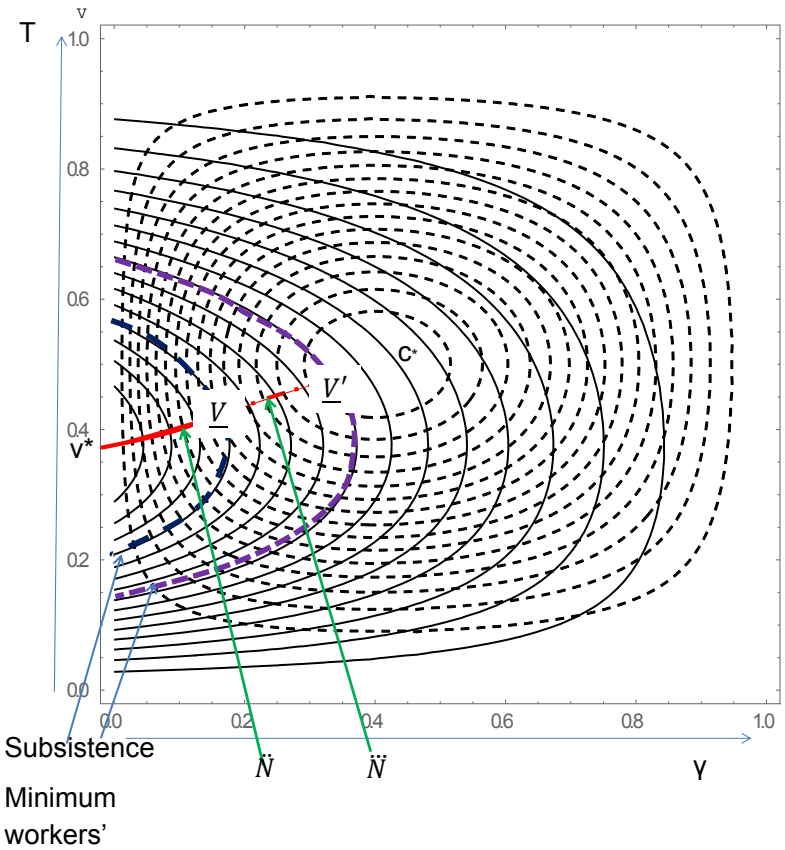
Theory: Link to Human Rights

Bargaining is over the core running between the workers' blisspoint v^* and oligarchs' blisspoint, c^*. The bargaining shares are assumed to reflect repression (bad human rights).



Theory: Link to Human Rights

A higher proportion of aid is wasted the stronger is oligarchs' bargaining power, which moves the economy closer to c^*. However, the marginal effect is even stronger where there is a poverty trap (minimum income which sets workers' disagreement point).



Data and Measures

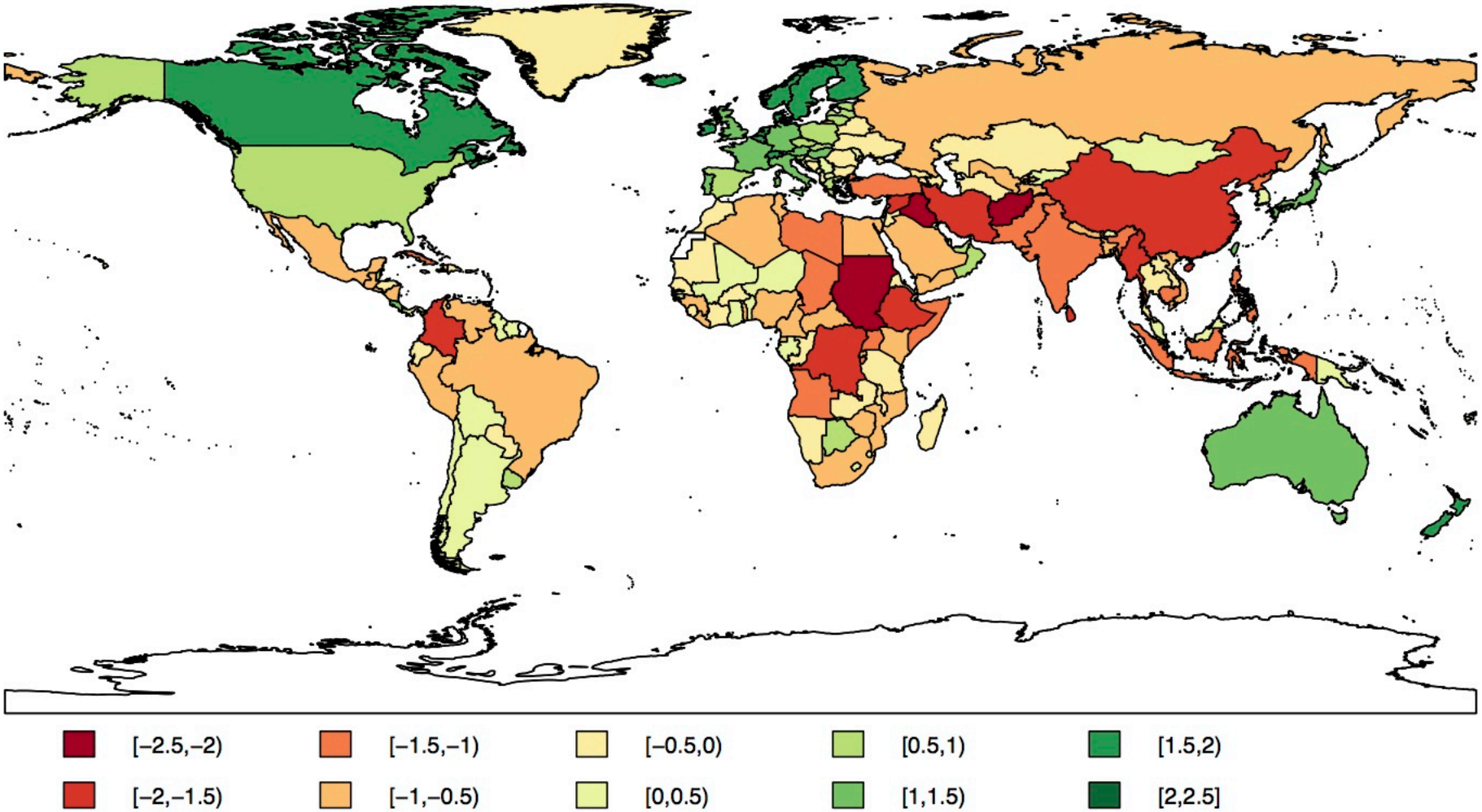
* The analysis will focuses on a specific group of countries, namely on Least Developed Countries (LDC) as defined and listed by the UN (UN-OHRLLS). Primarily this avoids the sample selection bias that Burnside and Dollar (2000) were heavily criticised for (Easterly et al. (2004)). Additionally non-aid recipients were removed in order to avoid any bias.As such conclusions of this study will only be directly applicable to LDC.
* Following Landman and Larizza (2009) we derive the human rights factor (hrfactor) as a composition of four frequently used uman rights variables, the State Departments Political Terror Scale (PTS), Amnesty Internationals PTS, Cingranelli and Richards (1999) Physical Integrity Index and Freedom Houses Civil Liberties Scale.

Data: Summary Stats

variable	mean	sd	min	max	N
ln(GDP pc)	6.136295	.7066784	4.242465	9.674838	1221
ln(NetODA)	3.769015	1.04205	-1.789921	6.505793	1437
ln(NetODA) - HR factor	-1.275555	3.503605	-12.56649	11.43544	1437
HR factor	-.4663182	.9616243	-2.630825	1.885261	1440
Income Inequality	4.576544	1.458618	2.028978	8.92001	1002
Inflation	.1719094	1.219403	-.3156591	41.45108	1202
Gross Enrollment Ratio Primary Sch.	84.15685	32.91748	15.82211	211.2971	1162
ln(KOF)	3.400578	.2874051	2.42445	3.989039	1428
Ethnicity	4.264471	2.108191	1	10	1002
Internal Conflict	2.636727	3.780869	0	10	1002
Neighbors Conflict	6.035928	4.07659	0	10	1002
Lack of Democracy	5.22006	2.661793	.5	10	1002
Child Mortality Rate	143.0061	58.4794	13.9	316.8	1434

Note: The Table presents summary statistics of the main variable used in the analysis.

Human Right Index



Econometric Specification

Standard Per-Capita GDP (y) equation

$$ln(Y_{it}) = ln(Y_{it_0}) + \Delta ln(Y_{it}) \tag{6}$$

where $\Delta ln(Y_{it})$ depend on the level of investment (Δk), which in turn can positively depend on aid, better human rights, and economic globalisation, while low human capital and inflation can negatively influence investment.

Econometric Specification

Thus, we have

$$ln(Y_{it}) = \beta_0 + \beta_1 \Delta k_{it} + \varepsilon_{it} \tag{7}$$

$$\begin{aligned} \Delta k_{it} = \beta_2 ln(NetODA_{it}) + \beta_3 ihrfactor_{it} + \beta_4 ln(KOF)_{it} + \\ + \beta_5 GossEnrolRatioPrimary_{it} + \beta_6 Inflation_{it} + \epsilon_{it} \end{aligned} \tag{8}$$

Econometric Specification

Substituting Eq.(8) and Eq.(7) in Eq.(6) and rearranging for a growth model and adding additional controls yield:

$$\begin{aligned} ln(GDPpc_{it}) - ln(GDPpc_{it-1}) = \beta_0 ln(GDPpc_{it-1}) + \\ + \beta_1 ln(NetODA_{it}) + \beta_2 ln(NetODA_{it}) \cdot ihrfactor_{it} + \\ + \beta_3 ihrfactor_{it} + \beta_4 ln(KOF)_{it} + \\ + \beta_5 ln(INEQ_{it}) + \beta_6 GossEnrolRatioPrimary_{it} + \\ + \beta_7 Inflation_{it} + X'_{it}\beta_x + \gamma_t + \gamma_i + \varepsilon_{it} \end{aligned} \tag{9}$$

Here the dependent variable is the difference in GDPpc growth. Explanatory variable include aid per capita (netODA), inverse of human right $ihrfactor_{it}$, economic globalisation index (KOF_{it}), income inequality ($INEQ_{it}$), Inflation and a human capital indicator -i.e. gross rate of enrollment (both genders considered) in primary school - for country i in time t. Additional control variables (X_{it}) are included.

Table 1: Conditionality Hypothesis with Non-Income Dimension Effect

Variables	(1)	(2)	(3)	(4)
	LDCs			
	OLS	FE	2SLS	GMM
ln(NetODA)	0.00212	0.0203***	0.0125	0.0143**
	(0.00417)	(0.00686)	(0.0314)	(0.00628)
HR Factor	-0.0261**	-0.0507	-0.0504*	-0.0473*
	(0.0124)	(0.0346)	(0.0264)	(0.0263)
ln(NetODA)·HR Factor	0.00954**	0.0211*	0.0212***	0.0192**
	(0.00428)	(0.0111)	(0.00729)	(0.00805)
Lag ln(GDP pc)	-0.00218	-0.0882***	-0.170***	
	(0.00580)	(0.0160)	(0.0432)	
Lag Change ln(GDP pc)				0.128
				(0.128)
Constant	-0.0160	0.440***		-0.0746*
	(0.0322)	(0.103)		(0.0407)
Hausman test			180.03***	
Arellano-Bond test for AR(2)				.436
				[0.6627]
Observations	966	966	751	736
R-squared	0.098	0.201	0.273	
Country Dummy	-	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes
Number of id		40	39	39

Results

Viariables	(1)	(2)	(3)	(4)	(5)	(6)
	LDCs					
			Without HR Factor		With HR Factor	
	OLS	FE	2SLS	GMM	2SLS	GMM
ln(NetODA)	0.0105*	0.0195**	-0.0470	0.00596	-0.0338	0.0168**
	(0.00583)	(0.00741)	(0.0465)	(0.00478)	(0.0517)	(0.00732)
HR factor	-0.0627***	-0.0837*			-0.0568*	-0.0766***
	(0.0216)	(0.0440)			(0.0307)	(0.0297)
ln(NetODA) · HR factor	0.0181***	0.0265**	0.00532***	0.00277**	0.0201***	0.0232***
	(0.00611)	(0.0122)	(0.00185)	(0.00116)	(0.00763)	(0.00801)
Econ. Globalisation	-0.0138	0.0554	0.0732	-0.0383	0.0756	-0.0336
	(0.0143)	(0.0538)	(0.0588)	(0.0419)	(0.0568)	(0.0389)
Income Ineq.	-0.00402	0.00362	0.00647	0.00180	0.00548	0.000580
	(0.00252)	(0.00419)	(0.00506)	(0.00362)	(0.00509)	(0.00385)
Child Mort. Rate	4.34e-05	-0.000274	-0.000417	-0.000284	-0.000345	-0.000167
	(0.000130)	(0.000351)	(0.000415)	(0.000275)	(0.000409)	(0.000290)
Internal Conflict	-0.00502***	-0.00642**	-0.00560***	-0.00512**	-0.00676***	-0.00669**
	(0.00163)	(0.00267)	(0.00173)	(0.00226)	(0.00170)	(0.00277)
Neighboring Conflict	0.00240**	0.00103	0.00151	0.00324	0.00133	0.00291
	(0.000980)	(0.00137)	(0.00144)	(0.00239)	(0.00134)	(0.00230)
Inflation	0.0150	-0.00908	-0.00632	0.0166	-0.00915	0.0115
Observations	702	702	676	663	676	663
R-squared	0.186	0.367	0.259		0.305	
Country Dummy	-	Yes	Yes	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Number of id		37	37	37	37	37

Burnside & Dollar 2000

$$Policy_1 = -0.0129 \cdot Inflation + 0.0809 \cdot ln(Econ.Globalization) \quad (10)$$

$$Policy_2 = -0.116 \cdot Inflation + 0.201 \cdot ln(Econ.Globalization) + 0.000741 BudgetSurplus \quad (11)$$

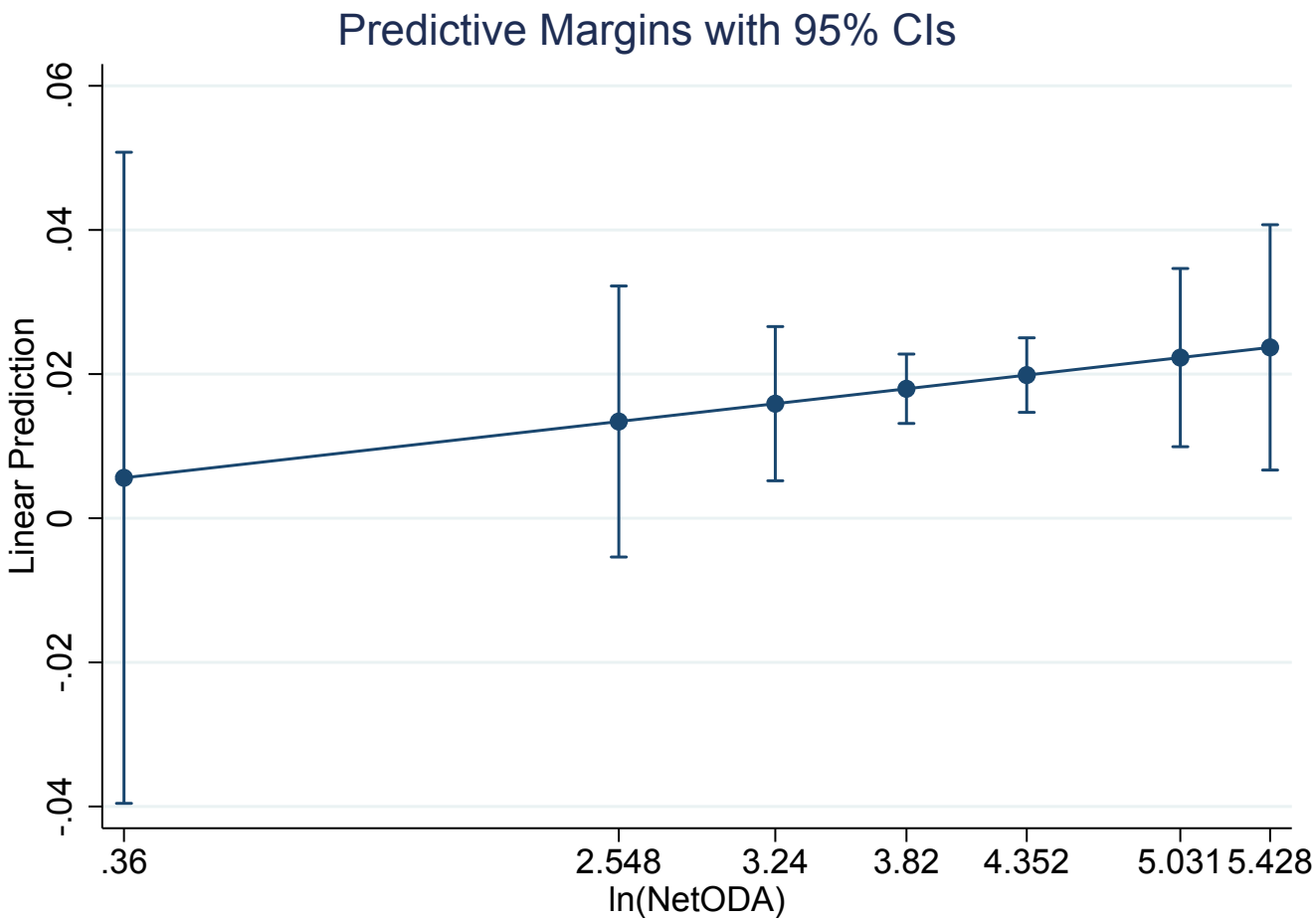
Burnside & Dollar 2000: Policy 1

VARIABLES	(1) OLS	(2) FE	(3) 2SLS	(4) OLS	(5) FE	(6) 2SLS	(7) OLS	(8) FE	(9) 2SLS
Lag ln(GDP pc)	0.00443	-0.139***	0.0791	0.000760	-0.159***	-0.0808	0.000684	-0.159***	-0.273**
	(0.00658)	(0.0379)	(0.322)	(0.00704)	(0.0406)	(0.154)	(0.00698)	(0.0409)	(0.131)
ln(NetODA)	0.00576	0.0107**	2.699	0.00536	0.0163**	1.513*	-0.0481	0.0537	8.260
	(0.00470)	(0.00523)	(2.217)	(0.00477)	(0.00737)	(0.830)	(0.0632)	(0.0732)	(5.033)
$Policy_1$							-0.962	1.477	103.9
							(0.830)	(1.049)	(63.22)
ln(NetODA) · $Policy_1$							0.192	-0.131	-28.62
							(0.214)	(0.244)	(17.48)
HR factor				-0.0207	-0.0500	-1.070*	-0.0209	-0.0507	-0.275
				(0.0140)	(0.0300)	(0.591)	(0.0138)	(0.0304)	(0.184)
ln(NetODA) · HR factor				0.0106**	0.0213**	0.269*	0.0107**	0.0215**	0.0832
				(0.00488)	(0.00960)	(0.147)	(0.00485)	(0.00973)	(0.0541)
ln(Econ. Globalization)	-0.0226*	0.0362	-2.238	-0.0172	0.0809*	-0.923			
	(0.0132)	(0.0402)	(1.919)	(0.0142)	(0.0405)	(0.602)			
Inflation	0.0162	-0.00869	0.291	0.0161	-0.0129	0.173			
	(0.0127)	(0.0179)	(0.341)	(0.0131)	(0.0171)	(0.163)			
Ethnic Diversity	-0.00246	-0.00998	-0.128	0.00160	-0.00221	0.00580	0.00172	-0.00256	-0.0782
	(0.00348)	(0.00859)	(0.116)	(0.00342)	(0.00603)	(0.0264)	(0.00359)	(0.00604)	(0.0495)
Assassination	-0.00439	-0.0118	-0.454	-0.00477	-0.00325	0.0694	-0.00496	-0.00378	-0.113
	(0.00921)	(0.0145)	(0.396)	(0.00945)	(0.0101)	(0.0866)	(0.00962)	(0.00987)	(0.0805)
Ethnic Diversity · Assassination	0.000706	0.00399	0.0647	-0.00156	-0.000358	-0.00971	-0.00152	-0.000182	0.0372
	(0.00208)	(0.00292)	(0.0606)	(0.00223)	(0.00200)	(0.0182)	(0.00232)	(0.00199)	(0.0248)
M2/GDP	0.000162	0.000364	-0.0175	-2.59e-05	-6.99e-05	-0.0135*	-1.53e-05	-9.87e-05	-0.00734
	(0.000175)	(0.000365)	(0.0160)	(0.000213)	(0.000285)	(0.00804)	(0.000207)	(0.000292)	(0.00513)
Institutional Quality	0.00130	-0.00240	0.0955	0.00364***	0.000960	0.0433	0.00391***	0.000880	-0.0133
(Lack of Democracy)	(0.000836)	(0.00155)	(0.0819)	(0.000977)	(0.00134)	(0.0265)	(0.00102)	(0.00132)	(0.0122)
Constant	0.0112	0.745**		0.0476	0.648***		0.256	0.519	
	(0.0378)	(0.280)		(0.0397)	(0.233)		(0.230)	(0.326)	
Test for exogeneity of Aid χ^2			1.49 [0.4756]			3.64 [0.1622]			3.32 [0.1899]
Observations	746	746	746	713	713	713	713	713	713
R-squared	0.104	0.209	-	0.127	0.273	-	0.129	0.273	-
Country Dummy	-	Yes	Yes	-	Yes	Yes	-	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of id		38	38		38	38		38	38

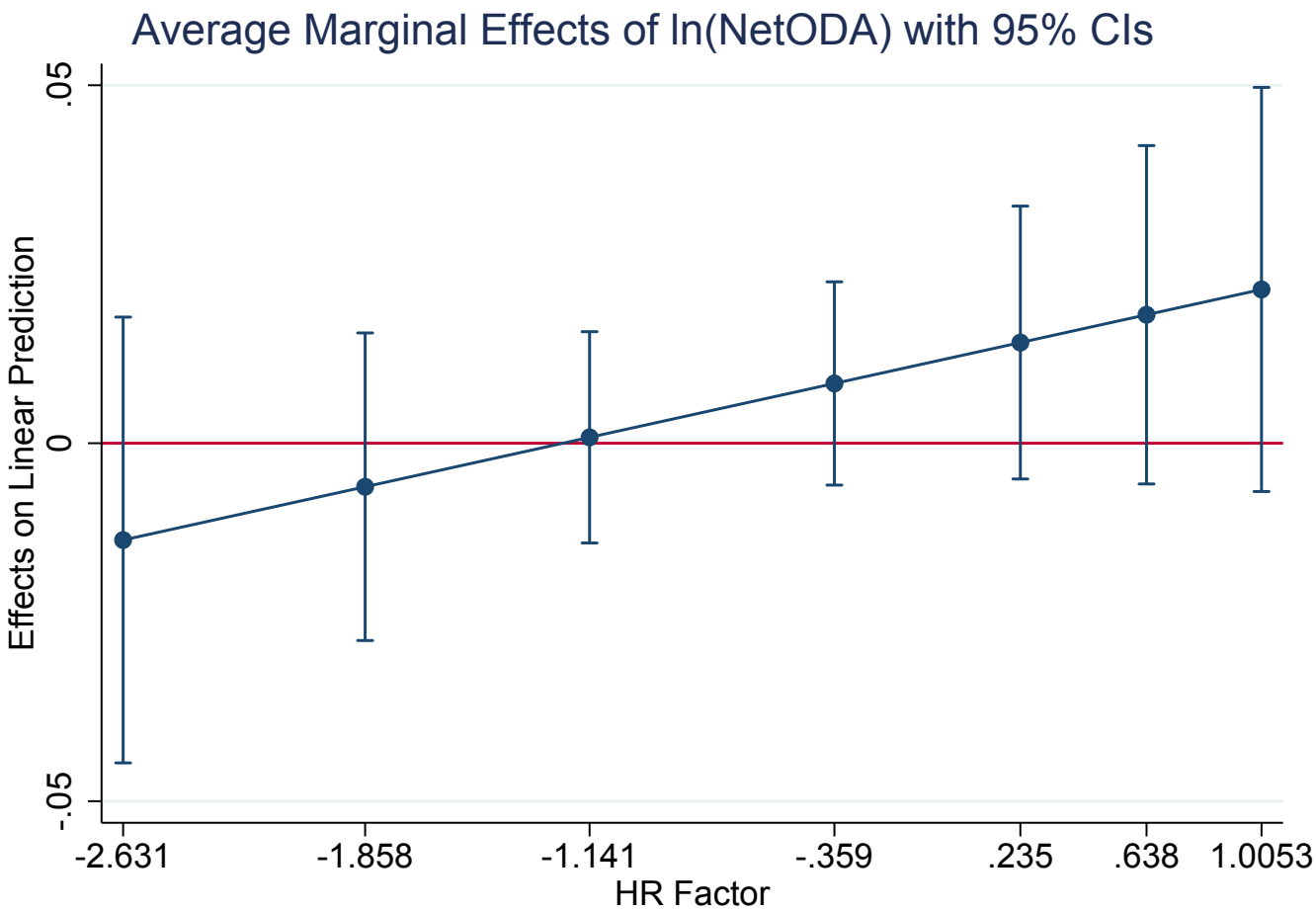
Burnside & Dollar 2000: Policy 2

VARIABLES	(1) OLS	(2) FE	(3) 2SLS	(4) OLS	(5) FE	(6) 2SLS	(7) OLS	(8) FE	(9) 2SLS
Lag ln(GDP pc)	-0.00433	0.0113	0.0458	-0.00833*	-0.0279	-0.101	-0.00921*	-0.0302	-0.0405
	(0.00433)	(0.0350)	(0.138)	(0.00502)	(0.0509)	(0.125)	(0.00512)	(0.0512)	(0.0394)
ln(NetODA)	0.0116***	-0.000891	-0.412	0.0153***	0.00765	0.364*	0.130**	0.0565	0.295
	(0.00394)	(0.00595)	(0.694)	(0.00571)	(0.00808)	(0.195)	(0.0546)	(0.0900)	(0.183)
$Policy_2$							0.751**	1.234**	2.348**
							(0.347)	(0.586)	(0.933)
ln(NetODA) · $Policy_2$							-0.163**	-0.0652	-0.380
							(0.0762)	(0.121)	(0.240)
HR factor				-0.0321	-0.0433	-0.400*	-0.0419**	-0.0494	-0.0818***
				(0.0204)	(0.0268)	(0.223)	(0.0191)	(0.0294)	(0.0307)
ln(NetODA) · HR factor				0.0106*	0.0149*	0.117*	0.0132***	0.0170**	0.0282***
				(0.00540)	(0.00750)	(0.0641)	(0.00497)	(0.00811)	(0.00950)
ln(Econ. Globalization)	0.00871	0.167**	0.975	0.0108	0.201***	-0.407			
	(0.0149)	(0.0695)	(1.422)	(0.0156)	(0.0680)	(0.393)			
Inflation	-0.0448	-0.107*	0.0492	-0.0432	-0.116*	-0.216			
	(0.0450)	(0.0544)	(0.283)	(0.0467)	(0.0609)	(0.155)			
Budget Surplus	0.000808*	0.000878	0.00781	0.000567	0.000741	-0.00569			
	(0.000473)	(0.000783)	(0.0121)	(0.000497)	(0.000860)	(0.00443)			
Ethnic Diversity	0.00616	0.00226	0.0748	0.0116**	0.00693	-0.0184	0.0107*	0.00612	0.00209
	(0.00480)	(0.00477)	(0.124)	(0.00582)	(0.00545)	(0.0171)	(0.00589)	(0.00597)	(0.00630)
Assassination	0.0185	0.00958	0.166	0.0304	0.0197	-0.0305	0.0288	0.0175	0.00676
	(0.0168)	(0.0245)	(0.271)	(0.0201)	(0.0240)	(0.0578)	(0.0205)	(0.0245)	(0.0218)
Ethnic Diversity · Assassination	-0.00450	-0.00180	-0.0360	-0.00755*	-0.00418	0.0106	-0.00687	-0.00368	-0.00124
	(0.00357)	(0.00479)	(0.0592)	(0.00434)	(0.00481)	(0.0133)	(0.00438)	(0.00487)	(0.00486)
M2/GDP	0.000579***	-0.00146*	0.00447	0.000143	-0.00156	-0.00819**	-0.000105	-0.00161	-0.00188**
	(0.000216)	(0.000771)	(0.00984)	(0.000277)	(0.00111)	(0.00402)	(0.000277)	(0.00105)	(0.000874)
Institutional Quality	0.00322***	0.000996	0.00993	0.00545***	0.00447*	0.00340	0.00562***	0.00456*	0.00498**
(Lack of Democracy)	(0.00119)	(0.00216)	(0.0173)	(0.00144)	(0.00258)	(0.00833)	(0.00141)	(0.00247)	(0.00232)
Constant	-0.0672	-0.610*		-0.147*	-0.569		-0.632**	-0.725	
	(0.0521)	(0.351)		(0.0797)	(0.409)		(0.246)	(0.610)	
Test for exogeneity of Aid χ^2			0.37 [0.8328]			4.05 [0.1317]			3.35 [0.1877]
Observations	224	224	222	203	203	201	203	203	201
R-squared	0.297	0.305	-	0.324	0.364	-	0.351	0.366	-
Country Dummy	-	Yes	Yes	-	Yes	Yes	-	Yes	Yes

Marginal Effects of Net ODA



Marginal Effects of Net ODA w.r.t. HR Factor



Conclusion

- Aid has a statistically positive effect on GDP growth as estimated by OLS, FE and GMM: i.e. the estimated elasticity for aid variable suggest that every 1% increase in aid, ln(NetODA, leads to about 0.0168 per cent.
- On the other hand, the **aid-policy interaction term** highlights a statistically significant and positive effect across all specifications.
- This emphasises the importance of development of freedoms as a source of gain in economic growth. The estimated elasticity suggests that countries with better development of freedom or good governance are able to have a further advantage in economic growth.

Questions?

Thank You

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