



The North-South Institute
L'Institut Nord-Sud

Research for a fairer world

Recherche pour un monde plus juste

Enhancing Domestic Resource Mobilization for Effective Development: Role of the Donor Community

**Yiagadeesen Samy & Aniket Bhushan
Wilton Park**

April 27-30, 2010



The North-South Institute
L'Institut Nord-Sud

Paper Outline

- Aid and DRM: key debates
 - Aid, taxation and governance
 - Aid and saving, investment, growth relationship
 - Absorptive capacity and volatility
- DRM in global perspective:
 - Declining trade revenue
 - Proliferation of exemptions
 - Capital flight and transfer pricing
- Does aid affect the ability of countries to tax?
- Policy recommendations



The North-South Institute
L'Institut Nord-Sud

DRM in wider perspective

	Tax/GDP (2000-07 average)	Savings/GDP (2000-08 average)	Investment/GDP (2000-08 average)	Growth (per capita, 2000-08 average, annual %)
East Asia	16.39	40.98	36.09	8.0
Latin America & Caribbean	15.68	21.33	20.21	2.3
South Asia	10.84	25.76	29.05	5.4
Sub Saharan	17.92	16.60	19.20	2.4



The North-South Institute
L'Institut Nord-Sud

DRM in Africa

Tax/GDP			Savings/GDP			Investment/GDP		
1980-89	1990-99	2000-07	1980-89	1990-99	2000-08	1980-89	1990-99	2000-08
17.39	17.41	17.92	20.09	15.39	16.60	20.72	17.47	19.20

Remittances (US\$m)			Aid (US\$m)			Net FDI (US\$m)		
1980-89	1990-99	2000-07	1980-89	1990-99	2000-08	1980-89	1990-99	2000-08
-1208.01	776.66	5620.23	9472.83	15745.61	23820.91	900.42	2661.02	9775.76



The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

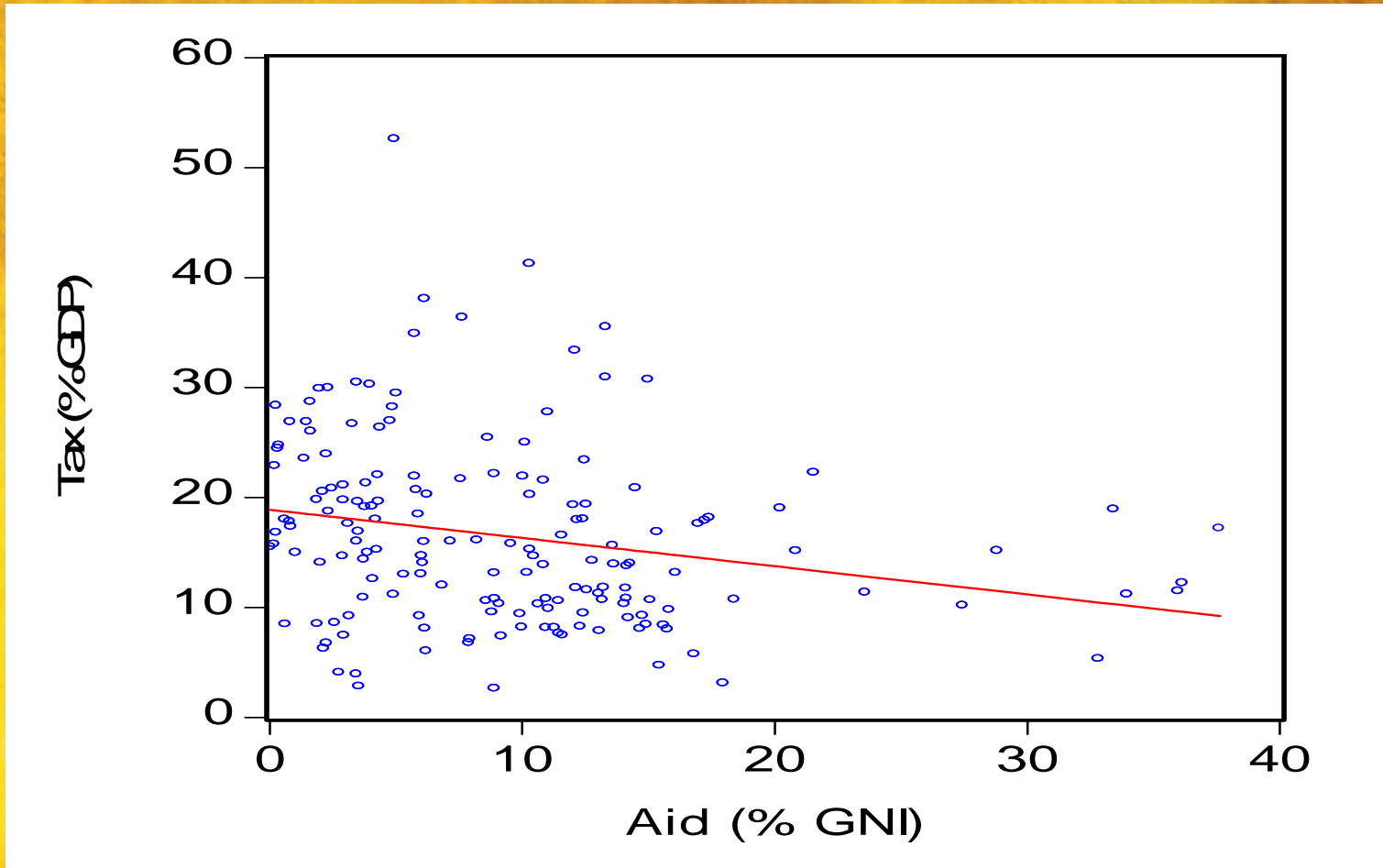
- Most studies find & emphasize negative *correlation* bw Aid and Taxation in developing countries (Knack; Moss; Brautigham; Remmer; Ghura; several country studies)
 - Aid negative impact on governance indicators, more so than oil (Djankov; Knack; Brautigham)
 - Type of aid (grant, loan) matters (Gupta)
- But findings sensitive to data, methodology, sample, specifications; data limitations - findings open to debate



The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

Aid and Taxation in Sub Saharan Africa 1972-2008





The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

- Model estimated:

$$tax_{it} (\% gdp) = f(aid_{it-1}, agric_{it-1}, trade_{it-1}, \varphi_{it-1})$$

- All variables averaged over 4-year periods to smooth yearly fluctuations
- Independent variables lagged by one period
- Some variables logged; estimation with fixed effects



The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

Table 1 Summary Statistics

Variable Name	Number of Observations	Mean	Median	Standard Deviation
<i>Tax (%GDP)</i>	566	15.36	14.66	6.70
<i>Log (GDPPC)</i>	1002	6.77	6.86	1.06
<i>Aid (%GNI)</i>	986	9.01	5.34	11.04
<i>Agriculture (%GDP)</i>	932	24.52	21.92	14.84
<i>Trade</i>	988	59.31	52.52	37.62
<i>Log(inflation)</i>	848	2.31	2.28	1.32
<i>Log(debt)</i>	890	3.89	3.91	0.86
<i>Democracy</i>	952	-0.86	-2.88	6.61



The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

Table 2 Correlation Matrix

	<i>Tax</i>	<i>GDPPC</i>	<i>Aid</i>	<i>Agric.</i>	<i>Trade</i>	<i>Infl.</i>	<i>Debt</i>	<i>Demo</i>
<i>Tax</i>	1.00							
<i>GDPPC</i>	0.22	1.00						
<i>Aid</i>	-0.06	-0.61	1.00					
<i>Agric.</i>	-0.31	-0.83	0.54	1.00				
<i>Trade</i>	0.53	0.11	0.08	-0.22	1.00			
<i>Infl.</i>	-0.08	0.03	0.00	0.03	-0.15	1.00		
<i>Debt</i>	0.12	-0.01	0.28	-0.11	0.17	-0.01	1.00	
<i>Demo</i>	0.04	0.35	-0.19	-0.33	0.10	0.04	0.05	1.00



The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

Table 3 Aid and Taxation, Fixed Effects Estimates, 1970-2008

Explanatory Variables	(1) Excl. HI and OECD	(2) Excl. HI and OECD	(3) LIC and LMI	(4) LIC and LMI	(5) SSA	(6) SSA
<i>Constant</i>	19.644** (2.790)	18.970** (2.765)	20.495* (2.419)	10.946 (1.308)	27.983** (2.113)	-17.771 (-1.111)
<i>log(GDPPC)</i>	-0.338 (-0.371)	-0.639 (-0.689)	-0.560 (-0.475)	0.069 (0.057)	-1.323 (-0.729)	3.772* (1.880)
<i>AID(%GNI)</i>	0.012 (0.253)	-0.019 (-0.324)	-0.016 (-0.305)	-0.037 (-0.646)	0.009 (0.124)	-0.012 (-0.172)
<i>AGR (%GDP)</i>	-0.167** (-3.416)	-0.155** (-3.536)	0.164** (2.963)	-0.122** (-2.511)	-0.247** (-3.234)	-0.004 (-1.282)
<i>Openness</i>	0.028* (1.685)	0.044** (2.772)	0.036* (1.901)	0.067** (3.236)	0.060* (1.754)	0.145** (3.951)
<i>log(inflation)</i>	-	-0.418** (-2.189)	-	-0.567* (-1.957)	-	-0.808 (-1.577)
<i>log (debt)</i>	-	0.534 (1.554)	-	0.997** (2.096)	-	1.816 (1.264)
<i>Democracy</i>	-	0.110* (2.009)	-	0.134* (1.787)	-	0.280** (2.215)
#Observations	499	415	327	278	165	131
Adj. R-squared	0.81	0.82	0.80	0.84	0.78	0.86
#Countries	102	85	69	61	36	30

Note: Except where indicated otherwise, the figures in parentheses are the robust standard errors. *(**) indicates 10(5) percent level of significance. Coefficients on time and country dummies not reported.



The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

- Summary of our very preliminary findings:
 - Main finding: structure of the economy – particularly share of agriculture and openness to trade- matter more for taxation
 - No significant relationship bw Aid & Tax (corroborated by recent lit eg. DiJohn; OECD)
 - Slight change in slope across periods 70-79; 80-89; 90-99; 00-07, from flat to negative (but not statistically significant)
 - Clear negative for SSA (1972-08) (but not significant)



The North-South Institute
L'Institut Nord-Sud

Does Aid Affect Taxation?

- Some further questions we pose in the paper:
 - Does aid matter for taxation above certain threshold (5%, 10% of GNI)?
 - Is Sub Saharan Africa different from other developing regions?
 - Have some countries reduced aid-dependence? What patterns do we observe?



The North-South Institute
L'Institut Nord-Sud

Donor role in DRM?

Recommendations

- **Coherence across trade, investment, development (aid) objectives & policies**
- **Stemming capital flight, international tax cooperation (building tax capacity)**
- **Linking aid with tax-effort**
- **Financial sector infra development (several opportunities)**
- **Harnessing revenue potential of resources sector**
- **Technology based innovations**
- **Remittances and Diaspora**