

Aid and Exogenous Institutions

How Aid Influences the Development of Institutions

Joseph Wright

jgwright@ucla.edu

Department of Political Science

University of California, Los Angeles

April 2005

In the last chapter we looked at how politicians use aid under different types of institutional settings; in this chapter we want to know how aid effects the development of institutions. Here I understand *institutions* to be both the formal and informal rules of the political game (North 1990). *Institutions* then encompass the choice of regime type (democracy, autocracy and everything in between) and informal mechanisms of the exercise of power such as corruption and rent-seeking behavior. Most critics of aid regimes argue that long-term aid hurts growth by contributing to the development of "bad" institutions. But the evidence for this claim is mixed, perhaps because researchers often do not carefully test the causal mechanisms they argue are at work. The research on this question generally looks at two types of dependent variables: institutional quality (Knack 2004, Brautigam & Knack 2004, Hoffman 2004, Goldsmith 2001) and democracy/democratization (Bratton & van de Walle 1997, Gibson & Hoffman 2002, Goldsmith 2001, Dunning 2004). Consistent with the critics of aid, some have found that aid is associated with decreases in institutional quality (Brautigam & Knack 2004, Hoffman 2004), and has relatively little effect (either way) on democratization or changes in political institutions (Hoffman 2004, Knack 2004). However others have found that aid is associated with higher levels of democracy (Goldsmith 2001), in particular during the post-Cold War period (Dunning 2004).

One possible explanation for these contradictory findings is that these researchers model the processes of democratization and institutional change in fundamentally different ways. The finding that aid is negatively associated with changes in institutional quality or democratization is the result of estimation equations that take the following general form:

$$\Delta Y = \alpha + \beta_0 Y_0 + \beta_1 Aid_{ave} + \beta X + \epsilon \quad (1)$$

where ΔY is the change in the variable of interest (for example the level of democracy in 2000 minus the level of democracy in 1975); Y_0 is the initial level of the variable of interest (the level of democracy in 1975); Aid_{ave} is the average amount of aid received over the period in question; and X is vector of covariates. There are a number of potential sources of error in this estimation technique.

First, by taking the change in the democracy scores over a period of time, the

researcher necessarily averages out important sources of variation – precisely the type of information we are interested in understanding. For example, the *change* in Freedom House scores (the measure of democratization often used in this literature) from 1975 to 2000 in El Salvador, Eritrea, Guatemala, Iran, Thailand, and Zimbabwe are all zero. According to the process modeled above, these countries did not change over those 25 years, yet every student of democratization knows that these countries all experienced dramatic changes in the key variable of interest— whether it be institutional change or democratization. Throughout this time period all of these countries experienced increases in the level of democracy, as well as decreases. But these changes are averaged out in the dependent variable used in Equation 1, and we are unable to model this variation.

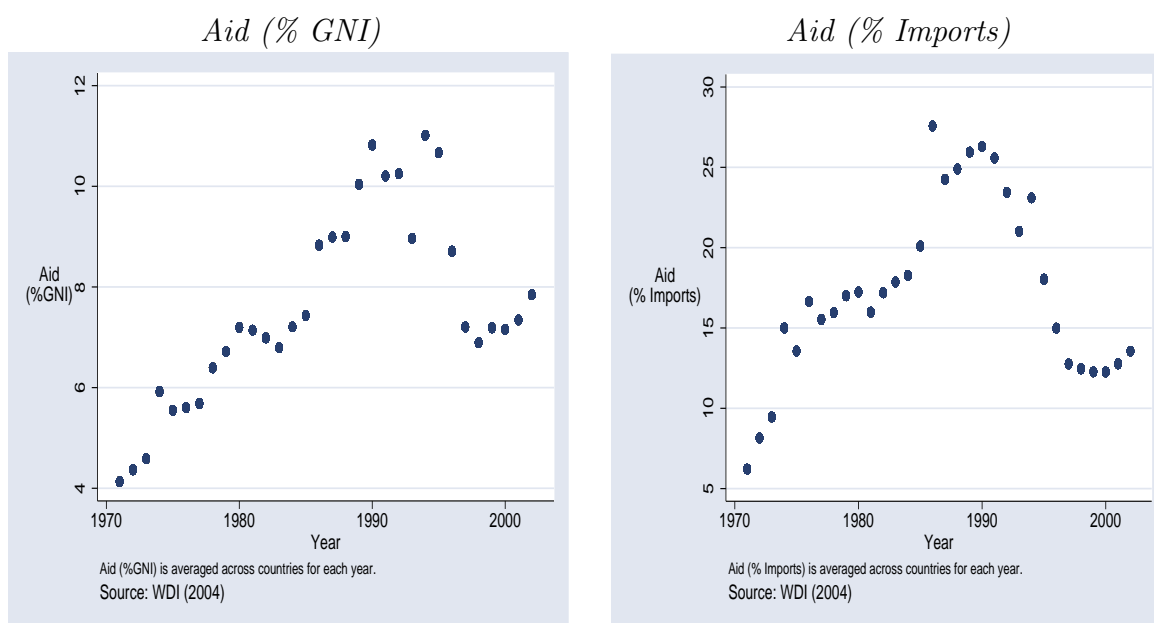
Second, the dependent variable is extremely sensitive to the choice of *begin* and *end* years. If a particular country undergoes a swift change in the level of democracy in a particular year and that year is chosen as the marker for measuring the dependent variable, then that Y_i may not be good measure of a process that we assume takes place over the course of time. For example, in 1975 Thailand had a brief interlude with democracy— sandwiched between two years of autocratic rule (1974 and 1976), while in 2000 Peru saw its first democratic elections after 8 years of semi- authoritarian rule. If the chosen period were 1974 to 1999 (rather than 1975 to 2000) the observations of the dependent variable in 1 would differ dramatically for those countries. And I doubt that aid averaged over 25 years is likely to be a good predictor of highly sensitive choices of the *begin* and *end* years. To my knowledge no researcher studying democratization using a quantitative approach looks only at cross-sectional differences. Rather they uniformly use cross-sectional, times series (panel) data because this allows us to understand what happens *within a country over time* as well as the cross-sectional differences (cite lit). The point here is that if we want to study the influence of aid (or any other exogenous phenomena) on democratization or institutional change, we should “tack” this variable onto the existing estimations in the literature, rather than creating a different type of estimation equation that focuses on the measurement of the independent variable we care about.¹

The larger point is that purely cross-sectional models are unable to exploit variation

¹See Marinov (2005) for a discussion of this issue in international relations literature.

over time in the data. In addition to the useful variation in the dependent variable, described above, there is considerable variation over time in the flow of aid to developing countries. As Figure 1 shows, the end of the Cold War (1990) marked a watershed in the flow of foreign aid. Aid steadily increased from 1970 through 1990 and then abruptly turned south after 1990, with a slight uptick in the late 1990s. We should exploit this variation in the data to understand to the relationship between foreign and domestic political institutions.

Figure 1: **Three Decades of Foreign Aid**



Studies that have found that aid is associated with higher levels of democracy (Goldsmith 2001, Dunning 2004) pool data across countries and over time, estimating a general equation that takes the following form:

$$Y_{it} = \alpha + \beta_{it}Aid_{i,timelag} + \beta X_{it} + \epsilon \quad (2)$$

This approach does allow us to glean insights from variation in both the dependent and independent variables of interest. This estimation equation, while capturing both cross-sectional and time-series variation, has been employed in ways that do not allow for the possibility of unit effects and do not account for the pervasive serial correlation in the

data. This latter issue is quite serious, as discussed below. It should be no surprise to political economists that institutions are sticky, and so we should not be afraid to explicitly model this stickiness by grappling with the serial correlation in the data.

A second possibility that might explain these divergent findings is that researchers have not correctly specified the functional form in their estimation equations; that is, they may conflate the underlying causal mechanisms they claim are at work. For example, most studies of aid and democracy cite the moral hazard problem as a reason why aid has a deleterious effect on the development of democratic institutions. Yet few carefully specify how the moral hazard caused by aid will influence the development of political institutions; nor do they directly test the implications of a political moral hazard.

Perhaps the most straightforward characterization of the moral hazard problem is that recipient governments face little incentive to pursue growth-friendly policies if they know that donors will continually give them aid so long as they remain poor. In a now-famous quip, Bill Easterly suggests that “[t]he poor are held hostage to extract aid from the donors.” (Easterly 2001*a*)(p. 116) The moral hazard problem, as stated here, is that recipient country governments have an incentive to remain *poor* so they deliberately obstruct *growth* by pursuing policies that hurt growth. This moral hazard problem says nothing about political institutions or even economic institutions, except insofar as recipient governments can manipulate these to subvert growth in order to continue to have access to aid. Economists have found some evidence that IMF loans (a form of aid) create a moral hazard, with regard to *economic policy*, for recipient countries: loan recipients pursue monetary expansion and have higher budget deficits when they have exhausted less of their borrowing potential from the IMF (Dreher & Vaubel 2002). The moral hazard argument in the realm of economic policies and outcomes is intuitively plausible and appears to garner some empirical support. It is plausible because donors give aid to poor countries *because they are poor*— thus begetting a moral hazard. But no one suggests that donors give money to poorly governed governments *because they are poorly governed*. Thus we need to think through carefully how aid might create a moral hazard for rulers in the realm of politics— to such an extent that they find it useful to

remain poorly governed.

In the next three sections, I outline the relationship between aid and political institutions through three causal mechanisms. First, I posit that aid may influence the survival of autocratic regimes, particularly when autocratic regimes face the onset of failure as the result of economic crisis. Second, I test an empirical model of the influence of aid on state capacity, taking seriously the argument that aid might hinder the development of state capacity by severing the revenue connection between the ruler and the ruled. And third, I model how aid might influence the influence of rent-seeking behavior. In this version of the paper, I only present the empirical tests in the first two sections, leaving tests of the model in the third section for the future.

1 Aid and leader survival

How would we define a moral hazard with regard to political institutions? One answer is that aid allows autocrats to survive under economic conditions that would otherwise lead to the end of their rule— the moral hazard being that autocrats do not alter their behavior under an aid regime when otherwise they would. As many scholars have argued, political democratization is often the result of an autocrat conceding power in exchange for the ability to extract resources— either through borrowing or taxation— from the citizens of the state (Gibson & Hoffman 2002, Bueno de Mesquita & Morrow 2003, North & Weingast 1989). The ruler needs resources to stay in power – whether as payoffs in a patronage system, capital to fight a war or defend against military rivals (North & Weingast 1989), or to distribute to groups of citizens with low collective actions costs (Bates 1981). When faced with declining domestic economic resources (external shock, debt crisis), the ruler then trades political power (observed as democratization) for more resources. If external aid enters the picture, however, the ruler may no longer be forced to concede power in the face of declining economic resources; he can survive on the aid alone. This version of the moral hazard argument implies that aid contributes to the survival of leaders who might otherwise be deposed.

To test this implication of the moral hazard argument, we need data on leader survival. The logic of this survival hypothesis, as stated above, is probably strongest in

the context of authoritarian regimes, in which case we would want to test the effect of aid dependency (usually measured as a share of GDP or a share of government expenditure) on the survival of autocratic leaders. It is also possible that aid increases the survival of any type of leader (democrat or autocrat) who faces economic crisis. The logic here is that leaders who face economic crisis are often encouraged by IFI's to undertake politically costly economic reforms (Haggard & Kaufman 1995)). Precisely because economic reforms (reducing budget deficits, privatizing state owned industries, slashing government employment, liberalizing trade) are politically costly, leaders are reluctant to pursue this course, and may view aid as a means to avoid the tradeoff entirely. While this latter argument does not imply that aid will influence the choice of political institutions per se, it does imply that aid might influence economic policy choice— which in turn can impact growth. In this case, aid influences growth through leadership survival and the persistence of poor economic policy. An alternative hypothesis is that aid *decreases* leader survival because large amounts of aid simply make capture of the state (and the aid, as well as other unearned income such as natural resource wealth, that comes with it), more attractive. It is possible that this larger prize invites potential coup-plotters (Grossman 1991) and creates more political instability which in turn hurts growth.

Testing the leader survival hypothesis

In this section I concentrate on testing whether or not aid is associated with the survival of autocracies. To test this hypothesis I employ a binary cross-section, time series model with regime failure as the dependent variable. If the autocracy survives in any given year, the dependent variable is coded a 0; and if the autocracy fails in a given year the dependent variable is coded as a 1. I control for time dependence by including splines – which are transformations of the duration of the regime, as recommended by Beck and Katz (1995).²

²Including the splines is simply a more concise way of including time dummies – i.e a dummy for each year of duration. Since the longest lasting regime in the data is over 50 years, we would need to include 50 dummy variables. Using time dummies also introduces the problem of certain time dummies perfectly predicting an outcome (0 or 1). That is, some time dummies will have no variation in the dependent variable and will be dropped from the analysis, which is akin to selecting on the dependent variable. For these reasons, I include splines to control for time dependence. The results do not change if I include exponential transformation of the linear duration variable (e.g. $duration$, $duration^2$, $duration^3$, etc.). I also use robust standard errors clustered on regime spell, the unit of analysis.

I employ the data set of authoritarian regimes used by Geddes (1999), which covers 148 authoritarian regime spells in 85 countries from 1950-2000. The data on aid begin only in 1970, so the data that I use in this analysis only cover the years from 1970-2000, which still amounts to 127 authoritarian regime spells. It is important to note that this data set disaggregates authoritarian spells into separate authoritarian *regime* spells. Successive dictatorships within in the same country are coded as separate events. For example, when General Sani Abacha took power in Nigeria in 1994, he replaced President Babangida, who himself had come to power in a coup. These two regimes are coded as separate authoritarian regime spells. This method of coding authoritarian *regimes* stands in contrast to the way researchers code authoritarian spells in the "democratic transitions" models (Przeworski et al. 2000). In the latter models, Babangida's and Abacha's rule would be grouped together in a single authoritarian spell.

There are two points to note about missing data in the analysis. First, this data set covers many Eastern and Central European communist regimes through the end of the Cold War. There is no data on aid to these Soviet bloc countries because the aid variables from the OECD that I employ in the analysis do not cover aid from the Soviet Union to its satellite states. I deleted these observations from the analysis.³ Second, the OECD reports no aid directed to Western European countries because the OECD measures only official development assistance. Three European countries (Greece, Spain, and Portugal during their authoritarian periods) do not have aid measures from the OECD. I have simply recoded the aid variable to zero for these countries. As we will see below, excluding the Central and Eastern European authoritarian regimes, reduces the sample size from over 2,000 country-years to less than 1500 country-years.

I use the OECD data on official development assistance (ODA) to measure aid dependency; this measure includes concessional loans, grants, and technical cooperation and assistance extended by members of the Development Assistance Committee and multilateral institutions. I employ three measures of ODA: aid as a share of GNI, aid as a share of central government spending (CGE), and aid as a share of imports (IMP). The

³This means excluding Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Romania, the Soviet Union, and Yugoslavia. Other communist states, such as Cuba, North Korea, and South Yemen are excluded on the grounds that we do not have reliable economic data for these countries.

coverage on aid (share of GNI) variable is more extensive than the other two measures.⁴ In the results shown below I simply use the measure of lagged aid in time $t - 1$. This ensures that we capture the effect of aid on regime failure and not the aid reward for a newly democratic regime. I also test models (not reported) using the moving average of lagged aid (aid averaged over $t - 1$ and $t - 2$, and averaged over $t - 1$, $t - 2$, and $t - 3$). When I use the moving average measures of aid I consistently get negative logit coefficient estimates (consistent with the expectation that aid keeps dictators in power), but they are *never* statistically different from zero. Using the moving averages severely reduces the sample size and thus I stick with the one year lagged aid variable in the models I report below.

The other explanatory variables of interest here are economic growth and the interaction between economic growth (crisis) and aid. Economic growth is measured as the moving average of economic growth rate averaged over time $t - 1$ and $t - 2$. I also construct a dummy variable for economic crisis (*Crisis*) which is coded 1 if the growth average over the respective 2 years is negative. I interact aid with both the continuous measure of economic crisis (*Growth * Aid*) and the dichotomous measure of economic crisis (*Crisis * Aid*).⁵ The control variables in the model are taken again taken from Geddes (1999), and include the following: level of development (*LGDP*), a dummy for civil war (*CivilWar*), a dummy for the Cold War (*ColdWar*), the percent of the population that is Muslim (*Islam*), the oil share of exports (*Oil*), dummies for the type of authoritarian regime, and dummies for region.⁶

Table 1: Aid and Authoritarian Survival

Regime Failure	(1)	(2)	(3)	(4)
<i>AidGNI</i> _{t-1}		-0.003 (0.02)		
<i>AidCGE</i> _{t-1}			0.007 (0.004)	
<i>AidImports</i> _{t-1}				-0.011 (0.01)
<i>LGDP</i>	-0.3 (0.17)	-0.40* (0.20)	-0.21 (0.41)	-0.44 (0.30)
<i>Growth</i> _{MA}	-6.19* (2.46)	-4.473 (3.44)	-2.06 (5.8)	-1.128 (4.2)
<i>CivilWar</i>	1.03** (0.23)	1.21** (0.25)	1.58** (0.44)	1.38** (0.32)
<i>ColdWar</i>	-0.58* (0.29)	-0.31 (0.33)	-0.85* (0.42)	-0.79* (0.38)
<i>Islam</i>	0.008* (0.004)	0.007 (0.004)	0.013 (0.008)	0.007 (0.006)
<i>Oil</i>	0 (0.02)	0.003 (0.02)	-0.012 (0.04)	-0.008 (0.02)
<i>Military</i>	2.4** (0.38)	2.2** (0.49)	3.09** (1.1)	3.3** (0.75)
<i>Mil – Pers</i>	1.44** (0.43)	1.55** (0.54)	2.47** (0.87)	2.43** (0.69)
<i>Personal</i>	1.09** (0.35)	1.03* (0.46)	1.88** (0.72)	2.08** (0.64)
<i>Pers – SParty</i>	1.33** (0.38)	1.45** (0.51)	2.2* (1.06)	2.19** (0.8)
<i>3 – Hybrid</i>	-0.85 (0.47)	-0.86 (0.50)	-0.48 (0.72)	-0.11 (0.54)
<i>Asia</i>	0.25 (0.28)	0.52 (0.33)	0.45 (0.51)	0.35 (0.44)
<i>CEEurope</i>	0.403 (0.53)			
<i>MEast</i>	-0.33 (0.59)	-0.37 (0.70)		
<i>NAfrica</i>	-1.36** (0.53)	-1.013 (0.55)	-2.04* (1.03)	-1.44 (0.82)
<i>SAmerica</i>	1.62** (0.44)	1.30** (0.47)	1.21 (0.63)	1.47* (0.60)
<i>WEurope</i>	0.63 (0.47)	0.58 (0.54)	-0.06 (0.59)	-0.10 (0.60)
<i>Spline1</i>	0.016 (0.02)	0.031 (0.03)	0.061 (0.04)	0.057 (0.03)
<i>Spline2</i>	0.051* (0.03)	0.046 (0.03)	0.068 (0.05)	0.057 (0.04)
<i>Spline3</i>	0.069 (0.06)	-0.008 (0.11)	-0.026 (0.13)	-0.001 (0.11)
<i>Spline4</i>	-0.026 (0.12)	0.171 (0.14)	0.157 (0.15)	0.162 (0.14)
<i>Constant</i>	-2.16 (1.27)	-1.74 (1.58)	-7.77* (3.08)	-2.19 (2.07)
<i>Observations</i>	2101	1431	767	894

* p<.05; ** p<.01; standard errors in parentheses

Leader survival results

Table 1 shows the results of basic tests of the hypothesis that aid decreases the likelihood of regime failure. Model (1) simply replicates the regime failure model in Geddes (1999). It indicates that, among other things, countries that experience more economic growth are less likely to fail.⁷ Models (2)-(4) simply add a different measure of aid dependency, one at a time, to test whether aid is associated with regime failure. Two measures of aid have negative coefficients, indicating that aid helps to keep an autocrat in power; but neither of these coefficients is statistically different from zero. And a third measure of aid (as a share of central government spending) has a positive coefficient, though it is not statistically significant. Put together, these models seem to indicate that aid has no effect on authoritarian regime survival. This null result is not due to the fact that aid is collinear with another control variable – for example some types of authoritarian regimes might get more aid than others. When I simply use aid (all three measures) and the splines as explanatory variables, the aid coefficients are all positive and again not statistically significant. Given that none of the variables of theoretical interest are statistically significant, I will not discuss any potential substantive significance, other than to say that the data do not appear to support the hypothesis that aid decreases the likelihood of regime failure.

The models in Table 2 test the hypothesis that aid increases the likelihood of authoritarian regime survival in the event of poor economic performance. None of the variables of interest (aid, growth/crisis, interaction of aid and growth/crisis) are statistically significant in any of the models. Again, these variables of interest are not collinear

⁴*Aid_CGE* and *Aid_IMP* both have severe outliers (See Appendix A). I collapse these outliers to 150 in both cases- meaning 150% of the respective measure. For *Aid_CGE*, this means recoded 7 observations; for *Aid_IMP* this amounts to recoding 4 observations. The results do not change if I simply delete these observations.

⁵I repeat this analysis in Tables 1 and 2 (not shown) using a measure of economic growth that averages over t and $t - 1$, instead of $t - 1$ and $t - 2$. Using this alternative measure of growth does not change the results.

⁶Authoritarian regime types, as coded by Geddes(1999), include the following: military, personal, single party (left out category), hybrid military-personal, hybrid personal-single party , and hybrid of all three types. The region dummies include: Asia, Central and Eastern Europe (excluded in all models except (1) in Table 1) , Central America and Caribbean (left out category), Middle East, North Africa, South America, and Western Europe.

⁷The logit coefficient for *Growth*, which indicates the probability of failure, is negative and highly statistically significant.

Table 2: Economic Crisis, Aid, and Authoritarian Survival

Regime Failure	(1)	(2)	(3)	(4)	(5)	(6)
<i>AidGNI_{t-1}</i>	-0.003 -0.015			-0.005 -0.02		
<i>AidCGE_{t-1}</i>		0.007 -0.005			0.005 -0.005	
<i>AidImports_{t-1}</i>			-0.011 -0.007			-0.011 -0.009
<i>Growth * AidGNI</i>	-0.005 -0.257					
<i>Growth * AidCGE</i>		-0.023 -0.102				
<i>Growth * AidIMP</i>			0.028 -0.086			
<i>Crisis * AidGNI</i>				0.002 -0.024		
<i>Crisis * AidCGE</i>					0.008 -0.009	
<i>Crisis * AidIMP</i>						-0.001 -0.01
<i>Crisis</i>				0.071 -0.365	-0.111 -0.585	0.006 -0.437
<i>Growth_{2MA}</i>	-4.421 -4.267	-1.142 -7.229	-1.86 -5.081			
<i>LGDP</i>	-0.402 (0.201)*	0.218 -0.411	-0.439 -0.298	-0.448 (0.200)*	0.21 -0.413	-0.455 -0.297
<i>CivilWar</i>	1.21 (0.255)**	1.589 (0.443)**	1.379 (0.314)**	1.276 (0.255)**	1.643 (0.460)**	1.393 (0.324)**
<i>ColdWar</i>	-0.305 -0.334	-0.829 -0.427	-0.788 (0.377)*	-0.302 -0.333	-0.805 -0.42	-0.784 (0.377)*
<i>Islam</i>	0.007 -0.004	0.013 -0.008	0.007 -0.006	0.007 -0.004	0.013 -0.008	0.007 -0.006
<i>Oil</i>	0.003 -0.018	-0.01 -0.04	-0.008 -0.021	0.003 -0.018	-0.006 -0.038	-0.008 -0.021
<i>Military</i>	2.17 (0.488)**	3.086 (1.091)**	3.301 (0.745)**	2.167 (0.502)**	3.074 (1.108)**	3.308 (0.761)**
<i>Mil – Pers</i>	1.549 (0.542)**	2.466 (0.865)**	2.444 (0.691)**	1.57 (0.558)**	2.437 (0.865)**	2.444 (0.691)**
<i>Personal</i>	1.034 (0.463)*	1.887 (0.713)**	2.076 (0.637)**	1.062 (0.467)*	1.904 (0.714)**	2.077 (0.641)**
<i>Pers – SParty</i>	1.451 (0.507)**	2.181 (1.068)*	2.186 (0.793)**	1.454 (0.515)**	2.13 (1.078)*	2.209 (0.792)**
<i>3 – Hybrid</i>	-0.861 -0.501	-0.492 -0.725	-0.101 -0.544	-0.95 -0.503	-0.566 -0.73	-0.134 -0.546
<i>Asia</i>	0.518 -0.334	0.436 -0.523	0.365 -0.451	0.411 -0.335	0.42 -0.487	0.305 -0.426
<i>MEast</i>	-0.373 -0.697			-0.415 -0.697		
<i>NAfrica</i>	-1.013 -0.554	-2.025 (1.026)*	-1.449 -0.819	-0.999 -0.563	-2.036 (1.029)*	-1.448 -0.82
<i>SAmerica</i>	1.303 (0.469)**	1.234 -0.643	1.464 (0.593)*	1.32 (0.480)**	1.331 (0.659)*	1.479 (0.602)*
<i>WEurope</i>	0.573 -0.557	-0.098 -0.598	-0.061 -0.624	0.372 -0.521	-0.165 -0.568	-0.139 -0.585
<i>Spline1</i>	0.031 -0.029	0.06 -0.038	0.058 -0.031	0.037 -0.029	0.058 -0.039	0.059 -0.03
<i>Spline2</i>	0.046 -0.03	0.069 -0.044	0.057 -0.036	0.046 -0.03	0.073 -0.044	0.057 -0.036
<i>Spline3</i>	-0.009 -0.112	-0.025 -0.126	-0.001 -0.113	-0.014 -0.11	-0.027 -0.125	-0.002 -0.113
<i>Spline4</i>	0.171 -0.141	0.158 -0.149	0.161 -0.14	0.179 -0.137	0.161 -0.146	0.163 -0.138
<i>Constant</i>	-1.744 -1.58	-7.867 (3.069)*	-2.162 -2.058	-1.546 -1.559	-7.831 (3.176)*	-2.088 -2.075
<i>Observations</i>	1431	767	894	1431	767	894

* p<.05; ** p<.01; standard errors in parentheses

with other control variables. When I test the models (not shown) with only the splines or with only the splines and *LGDP*, I still do not get any statistically significant coefficients. In sum, the models in Tables 1 and 2 suggest that aid has little influence on the survival of authoritarian regimes.

2 Aid and state capacity

A second way aid might influence the development of political institutions is through its influence on *state capacity*. Because the ruler of the state is not entirely dependent on the resources of the citizens for the revenue necessary for political survival, the rulers do not have the incentive to develop the capacity to extract resources from the citizens. As Tilly (1990) and others have argued, the revenue-taxation link between the ruler and the ruled was the impetus for the development not only of democratic political institutions but also for the formation of nation states (in Europe) that had the capacity to exert control over large areas and provide basic growth-friendly public goods such as defense. While similar in logic to a moral hazard, the state capacity argument is not strictly speaking a problem of moral hazard: the ruler may be able to survive without extracting revenue from the citizens (or survive while extracting less revenue), but this does not ex ante diminish the ruler's incentives to invest in state capacity. Consider the logic of a stationary bandit (Olson 1993) who has long time horizons and thus the incentive to invest in growth-friendly institutions because this maximizes the bandit's revenue as he has a larger pot from which to take. When the stationary bandit receives aid, this does not necessarily mean that the bandit's time horizons and incentives to invest in state capacity have changed. In fact, if aid increases the probability of a leader's survival, then aid might have the effect of increasing the time horizon of a stationary bandit, thereby increasing the leader's incentive to invest in state capacity. If we see a correlation between aid dependency and low state capacity, we might conclude that the causal arrow is pointing in the other direction: rulers with short time horizons that do not invest in state capacity attract aid precisely because they have low capacity.⁸

⁸In no way can we implicate aid for low state capacity of African states at the time of independence (Herbst 2002), though we might implicate some sort of *colonial* dependency.

While we might not expect aid to influence a stationary bandit's incentive to invest in state capacity, there are various ways that aid might influence state capacity, net of the ruler's incentives. On the negative ledger, aid might weaken state capacity when aid donors set up parallel distribution systems. While this argument applies most directly to non-fungible aid, it nonetheless suggests an avenue for how aid might affect institutional development, and as such it is a dominant theme of the literature on development project evaluation (Cite lit). As van de Walle (2001) suggests, the aid bureaucracy might act as a substitute for the state bureaucracy (p. 203). This may take a number forms. Development projects may pose a coordination problem for government policy planning, wherein donor-directed projects and state sponsored projects present development planners with diverse goals, skills and time lines for project implementation. Coordinating the myriad projects can raise development costs, both for donors and for the state bureaucracy. Additionally, donor projects may drain qualified staff from the state bureaucracy in a rather perverse form domestic brain drain.

It is also possible that aid can help create state capacity. For example, it is possible that leaders' efforts and goals to improve state capacity (perhaps because they are stationary bandits) and the aims of development agencies might overlap; thus aid would reinforce the positive change already underway. Second, aid and the technical assistance that comes with it can diffuse into the state. Third, aid conditionality, while much aligned in the literature, might induce positive institutional developments, particularly if the conditions are *ex post*, rather than *ex ante*. Last, many aid projects, particularly since the end of the Cold War, are directed explicitly at developing more transparent and efficient state bureaucracy as well as linking civil society organizations to the state.

If the central function of the state is to collect revenue to provide public goods, one measure of state capacity is the ability of the state to collect tax revenue from its citizens. Much of the literature on taxation argues that political constraints are the key variable in explaining taxation rates and revenue collection: politicians with greater constraints (democrats rather than autocrats) are able to collect more taxes (North & Weingast 1989, Levi 1988). In order to collect more revenue, politicians must credibly bind themselves to using the revenue to do things like create state capacity to provide public goods. Cheibub (1998) shows that, controlling for a myriad of factors including a

dichotomous measure of regime type, increases in grants to a country lower its predicted tax share. This relationship, while negative, is not statistically significant. Cheibub's study, like others, uses tax share measured as tax revenue collected by the government as a share of total GDP. But such a measure may conflate tax rates and government capacity to collect tax revenue. That is, low tax share may be the result of low state capacity to collect taxes or high marginal tax rates that create incentives for producers to either move production into lower tax arenas (often lower return production in the informal economy) or reduce production altogether. Without controlling for tax rates, it is difficult to meaningfully interpret tax revenue as a share of GDP.

Perhaps a better measure of the ability of a state to collect revenue is the composition of tax revenue. Tax revenue data is available for taxes on three broad categories: consumption (goods and services), labor (income, capital gains), and trade (exports). We should expect countries with more state capacity to be able to extract taxes from labor (and to a lesser extent consumption) more easily than countries with low state capacity, because income and capital taxes are the most difficult to collect— all else equal. Taxing trade only requires control over entry and exit points within the country, while XX. If aid causes low state capacity, then we should observe a negative correlation between aid and taxes on income and capital. Alternatively, we should expect countries with low state capacity to rely much more on taxes on trade for revenue; thus, we would expect to observe a positive correlation between aid and revenue from taxes on trade. Of course, we need to control for trade volume and the composition of trade. Countries that trade more are also likely to collect more taxes from trade, and countries that export easily identifiable goods such as raw material or natural resources are likely to receive more revenue from taxes on trade. Though both tax share (the tax measure used by Cheibub) and the composition of tax revenue (the measure that I use) require important controls in order to be properly interpreted, I use the composition of tax revenue because it is much easier to collect comparable cross-sectional data on trade volume and the composition of trade than to collect comparable cross-sectional data on tax rates.

Testing the state capacity argument

I test the state capacity argument on data covering 99 middle and low income countries from 1970 to 2002, where data is available.⁹ The dependent variable, $TaxShare_{it}$, is one of the three measures of tax share discussed above (tax share from consumption, labor, or trade). The independent variables of interest are measures of aid dependency, $Aid_{i,t-1}$, which measure the amount of aid distributed from all sources in a particular country in a particular year. There are three measures of aggregate aid that I test: aid as a share of GNI, as a share of central government expenditure, and as a share of imports. While, aid as a share of central government expenditures may be conceptually closest to capturing the effect of aid on state capacity, this measure of aid is more sparse and more variable than aid as a share of GNI – because the denominator in each measure can be quite different.¹⁰ Thus it is important to check the robustness of any results by using alternative measures of aid dependency. I include the following control variables: tax revenue as a share of GDP (Tax_GDP), level of development ($LGDP$), a dummy for the Cold War (before 1991), and measures of the composition of the economy such as agriculture (AGR), industry (IND), and trade as shares of GDP ($TRADE$). I also test models (not shown) that include agricultural (AGR_EXP) and raw materials (RAW_EXP) exports as a share of GDP.¹¹ All data are taken from the World Development Index (2004).

The control variables are important because they may affect the relationship between aid and tax composition. For example, aid might be given to poorer countries which also tend to rely more heavily on tax revenue from trade: it may simply be that poverty causes low state capacity. Economies that are more industrialized have a larger formal sector economy and collecting taxes from labor in the formal sector is much easier than collecting taxes from labor in the informal sector (subsistence agriculture). And countries that earn large amounts of foreign currency from the export of raw materials

⁹So far I have not dealt with the issue of missing data, though I do consider this problem to be potentially quite serious. In the specifications in the main text only 22% of the possible country-year observations are included in the test. Only 73% have data on GDP, and only 44% have data on the main dependent variable, trade tax share. And roughly half of the observations with trade tax share data are used in the specifications in the main text, due to missing data.

¹⁰Aid as a share of GNI has fewer outliers and is more stable across time because GNI is more stable than government expenditures. I address the issue of outliers in the Aid_CGE variable in Appendix A.

¹¹Including these controls does not result in significant changes in the results, but does reduce the sample size significantly. The aid variables are never statistically significant, and generally remain unstable.

and agricultural goods may have low state capacity for the same reason that aid might cause low state capacity: the unearned income from natural resource exports (for example oil) severs the accountability link between the ruler and the ruled. Because the flow aid to developing countries shifts dramatically after 1990, we need to account for the possibility that the effect of aid on the state's capacity to tax is different in the period before and after that date. Thus I include the Cold War dummy. Finally, to ensure that we capture the effect of aid on the *composition* of taxes and not the *amount* of tax revenue collected (Remmer 2004), we need to control for tax revenue as a share of GDP.

I employ an error-correction model similar to that used in recent studies of government spending (Iverson & Cusack 2000, Rodden 2004) and tax generation (Remmer 2004), and first introduced by Beck (1991).¹² The model takes the following form:

$$\Delta TaxShare_{it} = \alpha + \beta_1 \Delta Aid_{i,t} + \beta_2 \Delta \mathbf{X}_{it} + \phi (TaxShare_{i,t-1} - \gamma_1 Aid_{i,t-1} - \gamma_2 \mathbf{X}_{it}) + \epsilon_{it} \quad (3)$$

where $\beta \mathbf{X}_{it}$ is a vector of control variables. The dependent variable is the change in the trade share of taxes. The theoretical assumption of the model is that the relationship between the explanatory variables and tax share is a moving equilibrium, where the independent variables can influence short-term changes in the tax share (captured by the change independent variables) as well as long-term changes in the equilibrium level of tax shares (captured by the lagged independent variables). Rewriting (3) to obtain an estimation equation, we get the following:

$$\Delta TaxShare_{it} = \beta_0 + \beta_1 TaxShare_{i,t-1} + \beta_2 \Delta Aid_{it} + \beta_3 \Delta \beta \mathbf{X}_{it} + \beta_4 Aid_{i,t-1} + \beta_5 \mathbf{X}_{it} + \epsilon_{it} \quad (4)$$

where β_1 is ϕ from (3); β_2 is β_1 from (3); β_3 is β_2 from (3); β_4 is $\gamma_1 \phi$ from (3); and β_5 is $\gamma_2 \phi$ from (3). In equation (4) we are primarily interested in β_4 , the long-term influence of aid on the equilibrium tax share, and β_2 , the short-term influence of aid on tax share. A statistically significant β_4 coefficient means that a change in the level of aid can influence the long-term equilibrium tax composition. A significant β_2 coefficient can be interpreted

¹²For a discussion of this model and the tradeoffs involved in different model specifications for TSCS data, see Podesta 2003. I include the results of three additional models Appendix B: (1) GLS with panel specific AR1 error correction, (2) OLS with panel-corrected standard errors and a lagged dependent variable, and (3) GLS with fixed effects.

as the extent to which aid can influence the composition of taxes in short-term. Given an insignificant β_4 and a significant β_2 , the tax composition will return to its long-term equilibrium level after the one-off shock. We interpret the magnitude of the coefficients for the long-term influence of aid on tax share in the following manner: β_4/β_1 .

State capacity results

Table 1 reports the results of the error correction model. Recall, that we expect a positive relationship between aid dependency and the trade share of taxes, and a negative relationship between aid dependency and the income and consumption shares of the tax take. We also expect that absolute value of the coefficients for the aid dependency variable in the income tax share models to be larger than the absolute value of the aid coefficients in the consumption tax share models. The key explanatory variables of interest are the lagged aid variables, which specify the long-term effects of aid on tax composition. Less important, but still noteworthy, are the change (Δ) aid variables, which reflect the short-term impact of aid on tax composition.

The lagged aid variables in the trade tax share models (1-3) change signs and are not statistically different from zero. This suggests that the aid does not influence the long-term equilibrium level of the trade tax share. In the income share models (4-6), again, none of the lagged aid variables is different from zero, and the signs on the coefficients switch depending on the measure of aid. In the consumption share models (7-9), all the lagged aid coefficient signs are in the same direction and one is statistically significant, but the sign is the opposite (positive) of the expected direction. If we believe the results in (7), it suggests that aid actually *increases* a country's long-term ability to tax consumption. In (7), $\beta_4/\beta_1 = 0.6$; so increasing aid (as a share of GNI) by 1% will increase the long-term equilibrium level of the consumption tax share by 0.6%. And a one standard deviation increase in aid will therefore increase the consumption tax share by over 7%, which, given the mean consumption tax share is 25%, is not insignificant.

Turning to the change aid variables, the trade (1-3) and income (4-6) models have stable results in the expected direction, though only when we measure aid as a share of GNI are the coefficients for the change variables statistically significant. In the short-term, the coefficient for the change aid variable (1) suggests that a one standard deviation

Table 3: Aid and Trade Tax Share

Dep Var Tax Share	Trade 1	Trade 2	Trade 3	Inc 4	Inc 5	Inc 6	Cons 7	Cons 8	Cons 9
<i>AidGNI</i> _{<i>t</i>-1}	-0.042 (0.07)			0.054 (0.04)			0.12** (0.05)		
Δ <i>AidGNI</i>	0.209** (0.07)			-0.128* (0.05)			-0.034 (0.07)		
<i>AidCGE</i> _{<i>t</i>-1}		0.009 (0.02)			-0.004 (0.02)			0.008 (0.01)	
Δ <i>AidCGE</i>		0.025 (0.02)			-0.023 (0.01)			-0.003 (0.02)	
<i>AidImports</i> _{<i>t</i>-1}			0.018 (0.03)			0.03 (0.02)			0.014 (0.02)
Δ <i>AidImports</i>			0.002 (0.02)			-0.021 (0.01)			0.002 (0.02)
<i>ColdWar</i> _{<i>t</i>-1}	-1.51* (0.74)	-1.5 (0.77)	-1.1 (0.81)	0.49 (0.69)	0.55 (0.69)	0.12 (0.71)	1.00 (0.77)	0.87 (0.79)	1.24 (0.8)
<i>LogGDP</i> _{<i>t</i>-1}	0.57 (0.58)	1.08* (0.51)	0.64 (0.66)	1.32 (0.79)	1.39 (0.87)	1.43 (0.94)	0.34 (0.65)	0.22 (0.65)	0.68 (0.76)
<i>Agriculture</i> _{<i>t</i>-1}	-0.036 (0.04)	-0.021 (0.04)	0.003 (0.04)	0.022 (0.04)	0.037 (0.04)	-0.021 (0.05)	0.016 (0.04)	0.015 (0.04)	0.013 (0.04)
<i>Industry</i> _{<i>t</i>-1}	0.14** (0.04)	0.14** (0.04)	0.16** (0.05)	-0.091** (0.03)	-0.10** (0.04)	-0.12** (0.04)	0.061 (0.05)	0.036 (0.05)	0.051 (0.05)
<i>Trade</i> _{<i>t</i>-1}	-0.049** (0.01)	-0.048** (0.01)	-0.041** (0.01)	-0.004 (0.01)	0.001 (0.01)	0.004 (0.01)	0.024* (0.01)	0.024* (0.01)	0.024* (0.01)
<i>Taxrevenue</i> _{<i>t</i>-1}	0.008 (0.03)	0.019 (0.03)	0.004 (0.04)	0.019 (0.07)	0.014 (0.07)	-0.017 (0.05)	-0.036 (0.04)	-0.026 (0.04)	-0.041 (0.05)
Δ <i>ColdWar</i>	1.35* (0.59)	1.56* (0.63)	0.942 (0.60)	1.17* (0.60)	1.187 (0.60)	1.071 (0.66)	-3.24** (0.63)	-3.9** (0.71)	-2.6** (0.65)
Δ <i>LGDP</i>	-4.61** (1.2)	-4.85** (1.24)	-6.73** (1.5)	4.25** (1.44)	5.42** (1.51)	6.39** (1.76)	0.36 (1.19)	-1.65 (1.27)	1.70 (1.37)
Δ <i>Trade</i>	0.02 (0.02)	0.031 (0.02)	0.02 (0.02)	-0.026 (0.02)	-0.038* (0.02)	-0.014 (0.02)	-0.016 (0.02)	0.013 (0.02)	0.003 (0.02)
Δ <i>Agriculture</i>	0.36** (0.06)	0.36** (0.06)	0.43** (0.07)	-0.011 (0.06)	0.085 (0.06)	0.15* (0.07)	-0.16** (0.05)	-0.21** (0.06)	-0.21** (0.07)
Δ <i>Industry</i>	0.053 (0.05)	0.084 (0.06)	0.15* (0.07)	-0.007 (0.06)	0.09 (0.06)	0.031 (0.06)	-0.17** (0.05)	-0.23** (0.05)	-0.18** (0.06)
Δ <i>TaxRevenue</i>	0.17* (0.08)	0.157 (0.084)	0.018 (0.08)	0.7** (0.1)	0.63** (0.1)	0.81** (0.13)	-0.18** (0.07)	-0.16* (0.07)	-0.25** (0.09)
<i>Tradeshare</i> _{<i>t</i>-1}	0.21** (0.03)	0.20** (0.03)	0.18** (0.04)						
<i>Income</i> _{<i>t</i>-1}				0.13** (0.03)	0.13** (0.04)	0.12** (0.04)			
<i>Consumption</i> _{<i>t</i>-1}							0.20** (0.04)	0.18** (0.03)	0.16** (0.04)
<i>Constant</i>	-9.2 (5.6)	-14.2** (5.4)	-11.6 (6.5)	-11.7 (7.4)	-12.2 (7.9)	-10.5 (8.1)	-11.8 (6.1)	-9.1 (6.2)	-12.6 (7.0)
<i>Observations</i>	1026	973	765	1033	980	772	1026	973	765
<i>Countries</i>	99	96	92	99	96	92	99	96	92

p<.05; ** p<.01; standard errors in parentheses

increase in aid will increase the trade tax share (mean= 22%) by 2.5%. Again, consistent with our expectations, the coefficient for the change aid variable in (4) suggests that a one standard deviation increase in aid will decrease the income tax share (mean = 21%) by 1.5%. The short-term effects of aid in the consumption share models (7-9) switch signs depending on the measure of aid and are not statistically different from zero.

In sum, the evidence from the error correction model does not lend much support to the hypothesis that aid dependency influences the long-term equilibrium tax composition. This suggests that aid has little long-term effect on state capacity – at least as measured by the composition of tax revenue. There is some evidence, though, that aid can influence the short-term tax composition: aid increases the short-term tax take from trade, and it decreases the short-term tax take from income.

3 Aid and rent-seeking

A third way aid might influence the development of political institutions is by exacerbating the effect of existing rent-seeking. Economists have long modeled rent-seeking behavior and recently have begun to model the effect of aid on growth in an environment where rent-seeking prevails, showing that an increase in government revenues via aid actually decreases production in the private sector (Krueger 1974, Svensson 2000, Hodler 2000, van de Walle 2001). To provide the intuition for how aid can exacerbate rent-seeking, I add an aid component to a simple model of rent-seeking in the economics literature (Murhpy & Vishny 1993).

In this model citizens choose between investing in (1) the high-productivity sector (cash crops), (2) the low-productivity sector (subsistence agriculture), (3) and rent-seeking (state employment). Rent-seeking entails the appropriation of some of the product in high-productivity sector. As more citizens invest in rent-seeking, the utility of investment in the high-productivity sector decreases because rent-seeking entails the appropriation of this product. In response to the declining return to high-productivity sector investment, citizens either switch to investing one of the other two sectors. The return to high-productivity sector investment continues to decline until it equals the return on investment in the low-productivity sector. At that point, the return on investment in

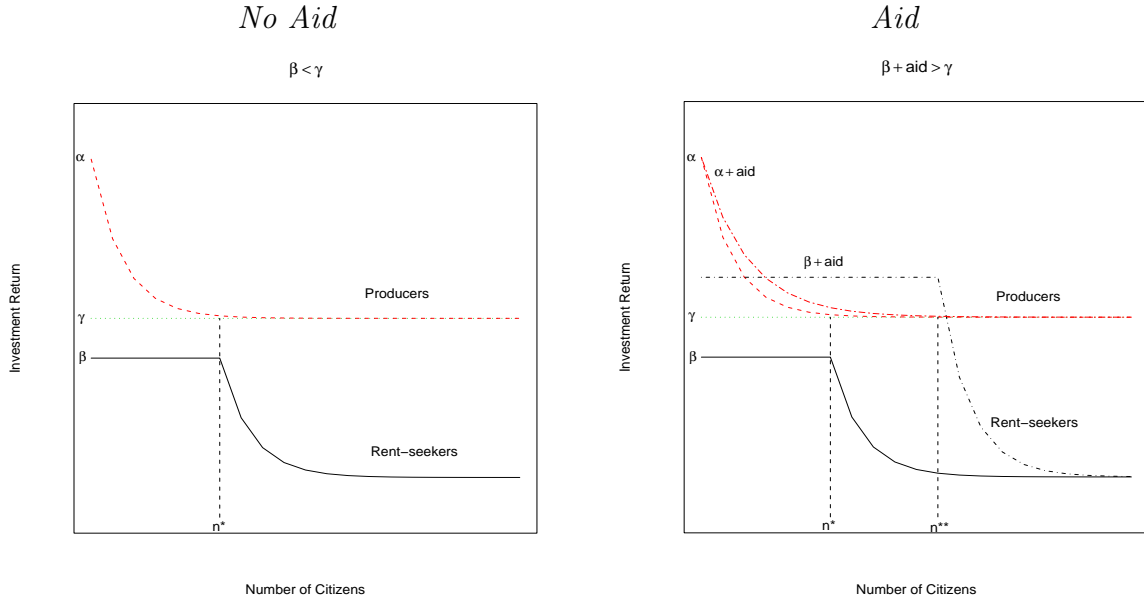
rent-seeking declines as more citizens invest in rent-seeking: because no one is investing in the high-productivity sector at this point, the pot from which rent-seekers take is simply divided amongst more people. The left panel of 3 illustrates this model, where α is the return on investment in the high-productivity sector, γ is the return on investment in the low-productivity sector, and β is the return on investment in rent-seeking. N is the number of citizens investing in rent-seeking. By definition $\alpha > \gamma$; β can be any value.

Different equilibria are possible in this model, depending on the starting value of β relative to γ . In the "good" equilibrium, shown in the left panel of 3, β is less than γ so no one has an incentive to invest in rent seeking. The return to rent-seeking for the first rent-seeker is less than the return she would get if she invested in either of the productive sectors. If $\beta > \gamma$, then subsistence producers have an incentive to switch to rent-seeking, and if $\beta > \alpha$ then everyone in the productive sectors have an incentive to switch to rent-seeking.

When we add aid to the model, it increases the value of rent seeking (β), and if large enough can push above the value of γ or even α . The right panel of 3 shows the scenario when $\alpha > \beta + aid > \gamma$. If this happens, there are two implications. First, obviously, citizens now have an incentive to invest in rent-seeking, whereas before they did not. And second, the rate of decline for rent seeking (β) is slower than before because . This results in an increased number of rent-seekers in equilibrium. Again, this second implication is straightforward: increased revenue (via aid) that can be captured through rent-seeking, but that is not derived from the productive sectors in the economy, can sustain a larger number of rent-seekers. The implication for growth is that aid can potentially "jump-start" rent-seeking behavior or if there is already rent-seeking, exacerbate it. The end is a decline in investment in the high-productivity sector, which results in less growth.

To test the implications of the rent-seeking model, we have to account for the fact that the impact of aid will be different depending on the initial level of returns to rent-seeking relative to the initial level of returns to productive activity. For example, the model allows for the possibility that aid will have no effect on rent-seeking and growth if the initial return to rent-seeking is sufficiently low that adding aid to this return still does not induce citizens to invest in rent-seeking: $\beta + aid < \gamma$. On the other end of the returns scale, aid will also have no effect on the number of rent-seekers or growth: when $\beta > \alpha$,

Figure 2: **Rent-Seeking**



it also must be true that $\beta + aid > \alpha$. So the model implies that aid will only influence rent-seeking and growth when aid helps push β across either the γ or α threshold.

Of course, all of this assumes that no aid finds its way into investment in either of the product sectors. Relaxing this assumption, it is possible that aid flows to any of the three sectors (to α, β , or γ). Let P_α be the share of aid that flows to α , P_β be the share of aid that flows to β , and $(1 - P_\alpha - P_\beta)$ be the share of aid that flows to γ . If $P_\beta < 1$, then some aid flows to investment, which will increase either (or both) α and γ , though only by some fraction of the investment (a fraction of $aid * P_\alpha + aid * P_\gamma$). One interpretation of β is the system of property rights protection, where low values of β correspond to well-protected property right and low levels of corruption. Thus we might argue that P_β is a function of β . That is, for lower levels of β we expect the share of aid flowing to rent-seeking to be lower: $P_\beta = f(\beta)$, $f' > 0$. If at lower values of β we expect a lower share of aid to flow to returns to rent-seeking, then the range of values for which aid “pushes” the value of $aid + \beta$ (in the right panel of Figure 1) across the γ threshold is even smaller than when we assumed that all aid flowed to returns to rent-seeking. The point of this little exercise is to show that the relationship between aid and rent-seeking

does not necessarily have to be strictly increasing. When we test the effect of aid on rent-seeking we have to be attune to these empirical implications of the model.

Building on Krueger's original example of rent-seeking behavior enabled through trade restrictions, researchers often measure rent-seeking using the black market premium (bmp). This is simply the ratio of the black market exchange rate and the official exchange rate. A direct implication of the model presented above is that aid lead to declines in investment in the high-productivity sector. One measure of this variable is simply the ratio of private investment to total investment. Both the measures of the bmp and private investment are available from WDI. I am reluctant to use survey-based indices of corruption or rent-seeking (e.g. ICGR) because subjective perceptions of corruption tend to be more accurate as a measure of cross-sectional variation and less accurate as a measure of variation over time within countries. One of the key features of the rent-seeking hypothesis that I want to capture is how aid affects rent-seeking over time within particular countries.

Look into electricity– talk to Julia.

4 Discussion and Conclusion

The purpose of this chapter has been to test the effect of aid on the development of institutions. In doing so, it is important to carefully specify how aid influences the incentives and behavior of particular players in the political game. The existing literature on aid and institutional development either (1) aggregates away most of the useful variation across time within particular countries and/or (2) conflates important causal mechanisms. I have outlined three causal mechanisms that directly address how aid might effect political development.

Critics of foreign aid often argue that aid not only has failed to improve growth, but actually hinders political development by keeping dictators in power. The paradigmatic example offered as an illustration is that of President Mobuto in Zaire. Undoubtedly Zaire received enormous amounts of aid during his rule, much of which he simply stole

or used to replace funds that he did steal. And aid probably contributed to his lasting grip on power. But many other, much less notorious, dictators also received enormous amounts of aid. One reason these other dictators who received large amounts of aid are less notorious is because their regimes were less stable. And that is precisely why the data provide no evidence for the hypothesis that aid helps keep dictators in power. To my knowledge, no researcher has tested the effect of aid on authoritarian regime survival using a full sample of authoritarian regimes. Rather, the methodology has simply amounted to parsing out the common characteristics of long-lived autocrats. And unsurprisingly, long-lived dictators do receive a lot of aid. The point of the first section of this chapter is to show that short-lived dictators do as well.

In the second section, I attempt to test whether or not foreign aid influences the development of state capacity. Again, I find little evidence that aid has much impact. Here, though, I am less glib about the null result. The primary reason for my reticence is that I have really only tested for whether or not aid influences tax composition in the near future. It may be that the effect of aid on state capacity is simply a process that takes more than a year (or a couple of years) to appear in the data. Because the data on tax shares is so sparse, it may make sense to simply do a cross-sectional test for this section, as lagging the aid variable more than five years wipes out nearly half of the countries under consideration.

I close with a caveat. The data on aid contain some missingness and the data on tax shares presented in the second section even more missingness. So far I have done nothing to check for the possibility of sample selection bias; nor have I attempted to impute any of the missing data. All the results are therefore quite tentative, at least until I can confirm that the sample in each of the tests presented in this chapter is indeed random.

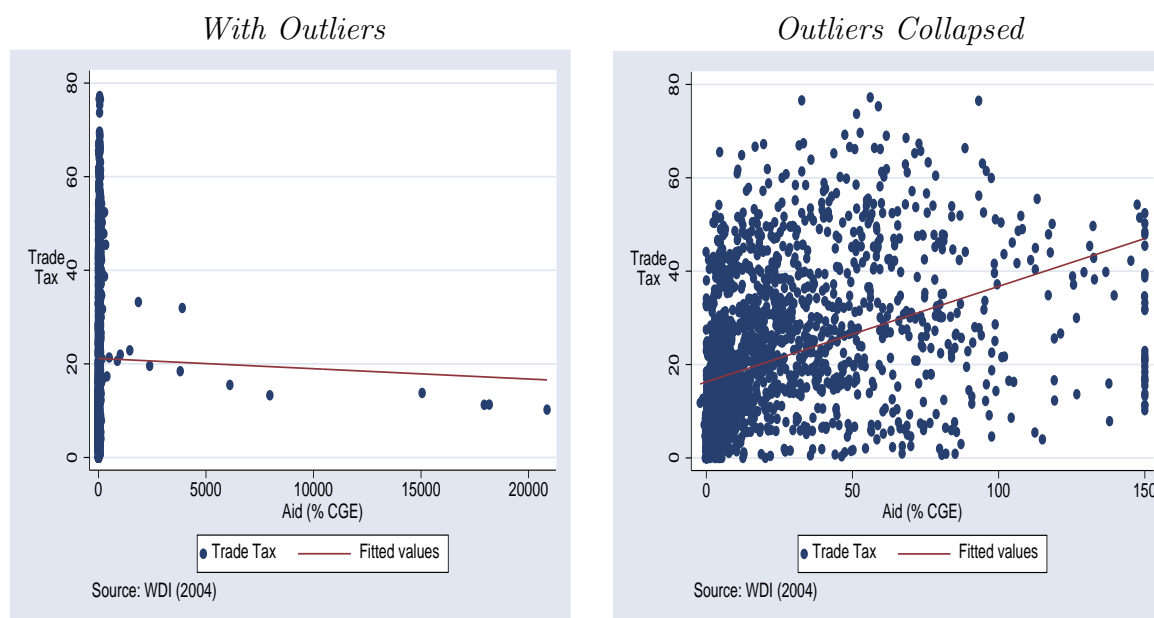
Appendix A

There are a handful of outliers in the Aid_CGE variable due to the fact in the Congo (DRC, in the late 1990s) and Ecuador (mid-1980s to mid-1990s) the denominator, reported central government spending, is extremely small. Thus we get a measure of Aid_CGE that ranges from 131% of government expenditures to over 20,000% in Ecuador during this period.

As the left panel of Figure 2 shows, we either have to exclude these outliers when using Aid_CGE or constrain them to be 150 which is the highest value of Aid_CGE outside of those two countries. The right panel of Figure 2 shows that once we constrain these outliers, the bivariate relationship switches signs. The correlation between Aid_CGE and Aid_GNI before we constrained these outliers was -0.0013 and afterwards it is $+0.697$. Throughout the analysis I use the constrained measure of Aid_CGE . The results do not change if I simply delete these 27 observations.

The following figure illustrate this severity of outliers:

Figure 3: **Taxes on trade and aid share of government spending**



Appendix B

This appendix provides results from the same data using model specifications that are more common in the political science literature. As the data vary across countries and across time we must check for the possibility that the errors are serially correlated and/or correlated with the cross-sectional units. As tax share is a variable that does not change dramatically from year to year, it is likely that $TaxShare_t$ is correlated with $TaxShare_{t-1}$. To check for this possibility I run an OLS model, calculate the errors, and regress ϵ_t on ϵ_{t-1} . The error term and lagged error term are highly correlated, with a β coefficient greater than .9 in all cases, suggesting an AR(1) process in the data.¹³

To correct for autocorrelation in the data I test two types of models: (1) a generalized least squared model with panel-specific AR(1) errors (PSAR1) and (2) a linear model with panel corrected standard errors and a lagged dependent variable (PCSE) (Beck & Katz 1995). The assumption in the PSAR1 models is that serially correlated errors are simply a nuisance that can be corrected by modeling an autoregressive (AR1) process. By including a lagged DV as a correction for serial correlation, the PCSE model assumes that there is a substantively meaningful persistence of over time in the dependent variable.

It is also possible that the errors are correlated with the units, which can be particularly problematic in a PCSE model (Kristensen & Wawro 2003). When the units (α_i) are correlated with the independent variables ($x_{i,t}$), then OLS (especially with a lagged DV) will produce biased coefficient estimates because their presence is picked up in the error term. And if the unmodeled unit effects are correlated with one or more explanatory variables, then the error term will be correlated with the explanatory variables, violating the consistency assumption. I am reasonably confident that unit effects are present in the data, and thus test fixed effects (FE) models as well.¹⁴ In the following tables, I report the results of three types of models (PSAR1, PCSE, and FE), with three measures of aid dependency (aid as a share of GNI, CGE, and imports), and for the sake of brevity only two dependent variables (trade and income shares of tax revenue).

¹³The correlation between ϵ_t and ϵ_{t-1} is greater than .9 for all combinations of the dependent variables (trade, income, and consumption tax shares) and independent variables of interest (aid as a share of GNI, CGE, and imports).

¹⁴F-tests consistently produce an r-squared estimates greater than .60 with $\text{Prob} > F = 0.0000$. Including the fixed effects nearly doubles the r-squared, from around .4 in OLS (or PSAR1) models to over .8 in the FE specifications.

Table 1 reports the results for trade share of taxes. Recall that if the state capacity argument is correct, we should expect a negative relationship between aid and trade tax share. The coefficients on the aid variables are all positive, though statistically significant in only some of the specifications. Looking at the PSAR1 models (1-3), the AID_GNI_{t-1} coefficient is not statistically significant while the other two measures of aid are. This may be due to the differences in the way aid is measured or due to the fact that the sample size drops in each of the latter two specifications. When I rerun the PSAR1 specification with AID_GNI_{t-1} while restricting the sample to the 1610 observations used in (2) or the 1442 observations use in (3), the AID_GNI_{t-1} coefficient .08 and statistically significant (not shown). This suggests that the significant aid coefficients in (2) and (3) may be due to sample selection. If we do think the aid coefficients are statistically significant, their magnitude (about .05) suggests that a one standard deviation increase in aid as share of GNI (from 8% to 20%) increases the tax share of revenue by 0.6% (mean = 21%, SD = 16%).

In the PCSE models, only one measure of aid is statistically significant, and reduced sample specifications of (4) and (5) do not yield statistically significant results. This suggests that the significant aid coefficient in (6) is not due to a sample selection issue. If we are to believe the result in (6), the coefficient suggests that a one standard deviation increase in aid as a share of imports (from 18% to 43%) leads to a 0.7% increase in the trade share of tax revenue. It is important to note that the coefficients for the lagged dependent variable in the PCSE models are all greater than .9 – again confirming that serial correlation is quite prevalent in the data.

Finally, the aid coefficients in the FE models are all statistically significant. The much larger coefficient for AID_GNI_{t-1} in (7) remain the same when we reduce the sample size to 1610 or 1444, suggesting that it's size is due to the way that aid is measured. The AID_GNI_{t-1} coefficient in (7), by far the largest in any of trade tax share models, suggests that a one standard deviation increase in aid as a share of GNI (from 8% to 20%) leads to a 2% increase in the trade tax share. In sum, the only model that shows any substantively significant relationship between aid and the share of tax revenue from trade is (7); while this model does account for fixed effects, it does not correct for serial correlation in the data.

Table 4: Aid and Trade Tax Share

Trade Tax	PSAR1 1	PSAR1 2	PSAR1 3	PCSE 4	PCSE 5	PCSE 6	FE 7	FE 8	FE 9
AID_GNI _{t-1}	0.04 (1.1)			0.013 (0.37)			0.17** (3.71)		
AID_CGE _{t-1}		0.061** (5.54)			0.005 (0.7)			0.061** (4.51)	
AID_Imp _{t-1}			0.046** (6.69)			0.029* (2.14)			0.026* (2.35)
Tax_GDP	0.21** (7.27)	0.25** (8.68)	0.18** (6.31)	0.014 (0.96)	0.02 (1.29)	0.015 (1.11)	0.17** (4.72)	0.22** (5.30)	0.15** (3.82)
LogGDP	-3.11** (4.38)	-1.87** (2.66)	-3.15** (3.98)	0.12 (0.42)	0.15 (0.58)	0.13 (0.42)	-6.69** (6.49)	-6.21** (5.89)	-10.64** (9.30)
Industry	-0.26** (6.97)	-0.21** (5.88)	-0.28** (7.21)	-0.033* (2.34)	-0.035* (2.44)	-0.026 (1.79)	0 (0.01)	0.032 (0.81)	0.061 (1.48)
Trade	0.052** (4.24)	0.044** (3.60)	0.035** (2.89)	0.008 (1.92)	0.008 (1.85)	0.007 (1.81)	0.031* (2.25)	0.028 (1.91)	0.04** (2.76)
Agriculture	0.38** (10.30)	0.35** (9.38)	0.28** (6.58)	0.05* (2.50)	0.046* (2.25)	0.018 (0.88)	0.41** (9.30)	0.41** (9.10)	0.36** (7.06)
Lag DV				0.92** (54.7)	0.92** (53.1)	0.93** (55.8)			
Constant	40.2** (6.58)	27.5** (4.55)	43.3** (6.48)	-0.37 (0.15)	-0.66 (0.28)	-0.62 (0.21)	60.5** (7.04)	54.3** (6.12)	91.0** (9.55)
Obs	1754	1610	1442	1653	1604	1387	1755	1610	1444
Countries	109	108	104	109	108	105	110	108	106

* p<.05; ** p<.01; z-scores in parentheses

Table 2 reports the results for the income share of taxes. Recall that if the state capacity argument is correct, we should observe a negative correlation between aid and the share of taxes from income. With the exception of the PCSE models, the coefficients for aid are all in the expected direction and statistically significant. The coefficient on aid in (1) indicates that a one standard deviation increase in aid (from 8% to 12% of GNI) decreases the income tax share by over 2%. The coefficient on aid in (3) indicates that a one standard deviation increase in aid (as a share of imports) decrease the income tax share by 0.6%. The statistically significant aid coefficients in the FE models (7-9) indicate even smaller effects of aid on income tax share.

In sum these models do not provide overwhelming evidence that trade tax share is positively correlated with aid dependency or that income tax share is negatively associated with aid. The signs on the aid variables are all in the expected direction, but when we include the lagged DV in the PCSE models, it wipes out most of the statistical significance

Table 5: Aid and Income Tax Share

Income Tax	PSAR1 1	PSAR1 2	PSAR1 3	PCSE 4	PCSE 5	PCSE 6	FE 7	FE 8	FE 9
AID_GNI _{t-1}	-0.18** (7.15)			-0.004 (0.18)			-0.13** (3.11)		
AID_CGE _{t-1}		-0.025* (2.43)			0.004 (0.7)			-0.03* (2.41)	
AID_Imp _{t-1}			-0.024** (3.47)			-0.001 (0.08)			-0.019 (1.78)
Tax_GDP	0.23** (7.53)	0.227** (7.78)	0.225** (7.09)	0.031** (2.95)	0.035** (3.30)	0.041** (2.82)	0.28** (8.21)	0.34** (8.68)	0.32** (8.30)
LogGDP	-3.59** (5.19)	-4.54** (6.71)	-2.49** (3.71)	-0.15 (0.62)	-0.059 (0.26)	0.056 (0.25)	3.38** (3.56)	4.19** (4.27)	4.86** (4.42)
Industry	0.32** (10.07)	0.39** (12.33)	0.34** (10.41)	0.037* (2.42)	0.038* (2.47)	0.028 (-1.64)	0.13** (3.75)	0.16** (4.23)	0.13** (3.34)
Trade	0.001 (0.13)	0.002 (0.24)	0.012 (1.21)	-0.005* (2.08)	-0.006* (2.08)	-0.005 (1.95)	-0.011 (0.9)	-0.017 (1.26)	-0.014 (1)
Agriculture	0.009 (0.27)	0.018 (0.52)	0.093 (2.70)	0.006 (0.47)	0.009 (0.6)	0.013 (0.76)	0.041 (1.02)	0.12** (2.79)	0.203** (4.11)
Lag DV				0.95** (59.4)	0.95** (56.2)	0.94** (54.7)			
Constant	36.8** (6.35)	42.4** (7.47)	24.4** (4.36)	0.97 (0.46)	-0.038 (0.02)	-0.66 (0.32)	-12.6 (1.59)	-22.1** (2.68)	-29.3** (3.20)
Obs	1760	1616	1448	1659	1610	1393	1761	1616	1450
Countries	109	108	104	109	108	105	110	108	106

* p<.05; ** p<.01; z-scores in parentheses

of the aid variables as well as the the significance of some of the control variables. The coefficient on the lagged dependent variable (in the PCSE models in Tables 2 and 3) is always greater than .9 and *never statistically different from 1*. And even once I model an AR1 process in (1) - (3), the errors are still highly correlated with the lagged errors. All this suggests that the serial correlation in the data is not simply a static AR1 process, but the result of a stationary process in the dependent variable. Given this, I would put the most confidence in the error-correction model presented in the main part of the text and PCSE models presented in this appendix. In both types of models there is little conclusive evidence that aid influences the tax composition of low and middle income countries.

References

- Acemoglu, Daron & James Robinson. 2003. *The Political Origins of Dictatorship and Democracy*. MIT Manuscript.
- Ake, Claude. 2000. *The Feasibility of Democracy in Africa*. Washington, D.C.: Council for the Development of Social Science Research in Africa.
- Alesina, Alberto & Dani Rodrik. 1994. "Distributive Politics and Economic Growth." *Quarterly Journal of Economics* .
- Alesina, Alberto & David Dollar. 2000. "Who Gives Foreign Aid to Whom and Why." *Journal of Economic Growth* .
- Alesina, Alberto & Weder. 2003. "Do Corrupt Governments Receive Less Aid?" *American Economic Review* .
- Baker, Dean & Mark Weisbrot. 2002. "The Relative Impact of Trade Liberalization on Developing Countries." *Center For Economic and Policy Research* .
- Barro, Robert. 1995. "Inflation and Growth." *NBER Working Paper* (5326).
- Barro, Robert. 1997. *Determinants of Economic Growth: A Cross-Country Empirical Study*. Cambridge: MIT University Press.
- Barro, Robert & Xavier Sala i Martin. 1998. *Economic Growth*. Cambridge: MIT Press.
- Bates, Robert. 1981. *Markets and States in Tropical Africa*. Berkeley: University of California Press.
- Beck, Neal & Jonathan Katz. 1995. "What to do (and not to do) with Time-Series Cross-Section Data." *American Political Science Review* (89):634.
- Boix, Carles. 2002. *Democracy and Redistribution*. Cambridge: Cambridge University Press.
- Boone, Peter. 1996. "Politics and the Effectiveness of Foreign Aid." *European Economic Review* (40):289–329.
- Bratton, Michael & Nicolas van de Walle. 1997. *Democratic Experiments in Africa*. Cambridge: Cambridge University Press.
- Brautigam, Deborah & Stephen Knack. 2004. "Foreign Aid, Institutions, and Governance in Sub-Saharan Africa." *Economic Development and Cultural Change* (52):255.
- Bueno de Mesquita, Bruce, Alastair Smith Randolph Siverson & James Morrow. 2003. *The Logic of Political Survival*. Cambridge: MIT Press.
- Burnside, Craig & David Dollar. 2000. "Aid, Policies, and Growth." *American Economic Review* (90):847–68.

- Carey, John & Matthew Shugart. 1995. "Incentives to cultivate the personal vote: a rank ordering of electoral systems." *Electoral Studies* (14):417.
- Cheibub, Jose Antonio. 1998. "Political Regimes and the Extractive Capacity of Governments: Taxation in Democracies and Dictatorships." *World Politics* (50).
- Clemens, Michael, Steve Radalet & Rhikial Bhavnani. 2004. "Counting chickens when they hatch: The short-term effect of aid on growth." *Center for Global Development* (Working Paper 44).
- Collier, David & Robert Adcock. 1999. "Democracy and Dichotomies: A Pragmatic Approach to Choices about Concept." *Annual Review of Political Science* (2):537–65.
- Collier, Paul & Jan Dehn. 2003. "Aid, Shocks, and Growth." *World Bank* (Working Paper 2688).
- Collier, Ruth Berins. 1982. *Regimes in Tropical Africa: Changing Forms of Supremacy, 1945-1975*. Berkeley: University of California Press.
- Cox, Gary. 1987. *The Efficient Secret*. Cambridge: Cambridge University Press.
- Diaz-Cayeros, Alberto. 2003. "Fiscal decentralization, legislative institutions and particularistic spending." *APSA* .
- Dreher, Axel & Roland Vaubel. 2002. Does the IMF cause moral hazard and political business cycles? Evidence from panel data. Technical report Economics Working Paper Archive at WUSTL.
- Dunning, Thad. 2004. "Conditioning the Effects of Aid: Cold War Politics, Donor Credibility, and Democracy in Africa." *International Organization* (58):409.
- Easterly, William. 2001a. *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*. Cambridge: MIT Press.
- Easterly, William. 2001b. "The Lost Decades: Developing Countries' Stagnation in Spite of Policy Reform 1980-1998." *Journal of Economic Growth* .
- Easterly, William & Aart Kraay. 2000. "Small States, Small Problems? Income, Growth, and Volatility in Small States." *World Development* (28):2013–2027.
- Easterly, William & Ross Levine. 2000. "Africa's Growth Tragedy: Policies and Ethnic Division." *The Quarterly Journal of Economics* .
- Easterly, William, Ross Levine & David Roodman. N.d. "New Data, New Doubts: A Comment on Burnside and Dollar's." . Forthcoming.
- Elmendorf & Mankiw. 1998. "Government Debt." *Paper prepared for the Handbook of Economics* .
- Fischer. 1993. "The Role of Macroeconomic Factors in Growth." *NBER Working Paper* (4565).

- Fisman, Raymond & Roberta Gatti. 2002. "Decentralization and corruption: evidence across countries." *Journal of Public Economics* (83):325.
- Frankel, J. & D. Romer. 1999. "Does Trade Cause Growth." *American Economic Review* (89):379–399.
- Frey, Bruno & Friedrich Schneider. 1986. "Who Gives Foreign Aid to Whom and Why." *Journal of Development Economics* .
- Gale & Orzag. 2002. "The Economic Effects of Long-term Fiscal Discipline." *Urban-Brookings Tax Policy Center Discussion Paper* .
- Geddes, Barbara. 1999. "Authoritarian Breakdown: Empirical Test of a Game Theoretic Argument." *APSA* .
- Gibson, Clark & Barak Hoffman. 2002. Dictators with Empty Pockets: A Political Concessions Model of Africa's Democratization. 2002 annual meetings of the american political science association, boston ma. UCSD.
- Goldsmith, Aurthur. 2001. "Foreign Aid and Statehood in Africa+." *International Organization* (53):123.
- Gowa, J. 1994. *Allies, adversaries, and international trade*. Princeton, NJ: Princeton University Press.
- Grossman, Herschel I. 1991. "A General Equilibrium Model of Insurrections." *American Economic Review* 81(4):912–21.
- Haggard, Stephan & Robert R. Kaufman. 1995. *The Political Economy of Democratic Transitions*. Princeton, N.J.: Princeton University Press.
- Hallerberg, Mark & Patrik Marier. 2004. "Executive Authority, the Personal Vote, and Budget Discipline in Latin American and Caribbean Countries." *American Journal of Political Science* (48):571.
- Hansen, Henrick & Finn Tarp. 2000. "Aid Effectiveness Disputed." *Journal of International Development* (12):375–98.
- Hansen, Henrick & Finn Tarp. 2001. "Aid and Growth Regressions." *Journal of Development Economics* (64).
- Heckman, James. 1979. "Sample Selection Bias as a Specification Error." *Econometrica* (47):153–61.
- Herbst, Jeffrey. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton, N.J.: Princeton University Prss.
- Hodler. 2000. Redistribution to Rent Seekers: Foreign Aid and Growth. Working paper University of Bern.
- Hoffman, Barak. 2004. Development Despots: Foreign Aid, Domestic Politics, and the Quality of Governance. Draft UCSD.

- Iverson, T. & T. Cusack. 2000. "The Causes of Welfare State Expansion: Deindustrialization or Globalization?" *World Politics* (53):313–49.
- Jensen, Nathan. 2003. "Democratic Governance and Multinational Corporations: Political Regimes and the Inflow of Foreign Direct Investment." *Industrial Organization* (57):587.
- Knack, Stephen. 1999. "Aid Dependence and the Quality of Governance: A Cross-Country Empirical Analysis." *IRIS, University of Maryland* .
- Knack, Stephen. 2004. "Does Foreign Aid Promote Democracy?" *International Studies Quarterly* (48):251–266.
- Knack, Stephen & Philip Keefer. 1995. "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures." *Economics and Politics* (7):207–27.
- Kristensen, Ida Pagter & Gregory Wawro. 2003. "Lagging the Dog?: The Robustness of Panel Corrected Standard Errors in the Presence of Serial Correlation and Observation Specific Effects." *Prepared for presentation at the 2003 Summer Methods Conference* .
- Krueger, Anne. 1974. "The Political Economy of the Rent-Seeking Society." *American Economic Review* (64):291.
- Kurnicova, Jana & Susan Rose-Ackerman. 2004. Electoral Rules and Constitutional Structures as Constraints on Corruption. Working paper Cal Tech and Yale.
- Lam, Ricky & Leonard Wantchekon. 2002. "Political Dutch Disease." *Manuscript. Yale University* .
- Lensik & White. 2001. "Are There Negative Returns to Aid?" *Journal of Development Studies* (37).
- Levi, Margaret. 1988. *Of Rule and Revenue*. Berkeley: University of California Press.
- Levitsky, Steven & Lucan A. Way. 2002. "Competitive Authoritarianism in the Post-Cold War Era." *Journal of Democracy* (13).
- Marinov, Nikolay. 2004. "Foreign Pressure and the Political Foundations of Democracy." *UCLA International Institute* .
- Montinola, Gabriella & Josephine Andrews. 2004. "Veto Players and the Rule of Law in Emergin Democracies." *Comparative Political Studies* (37):55–77.
- Montinola, Gabriella & Simon Jackman. 2002. "Sources of Corruption: A Cross-Country Study." *British Journal of Political Science* (32):147.
- Mozaffar, Shaheen. 2002. "Patterns of Electoral Governance in Africa's Emerging Democracies." *International Political Science Review* (23):85–101.

- Murphy, Kevin, Andrei Schleifer & Robert Vishny. 1993. "Why is Rent-Seeking So Costly to Growth." *American Economic Review* (83):409.
- Myerson, Roger. 1993a. "Effective of Electoral Systems for Reducing Government Corruption: A Game Theoretic Analysis." *Games and Economic Behavior* (5):188–32.
- Myerson, Roger. 1993b. "Incentives to Cultivate Favored Minorities Under Alternative Electoral Systems." *American Political Science Review* (87):856.
- Ndulu, Peter & Stephen O'Connell. 1999. "Governance and Growth in Sub-Saharan Africa." *Journal of Economic Perspectives* .
- Njoh, Peter. 2000. "The Impact of Colonial Heritage on Development in Sub-Saharan Africa." *Social Indicators Research* .
- North, Douglass & Barry Weingast. 1989. "The Constitution of Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth Century England." *Journal of Economic History* (49):803–831.
- North, Douglass C. 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.
- Olson, Mancur. 1993. "Dictatorship, democracy, and development." *American Political Science Review* (87):567.
- Persico, Alessandro & Nicola Lizzeri. 2001. "The Provision of Public Goods Under Alternative Electoral Incentives." *American Economic Review* (91):225–239.
- Persson, Torsten & Guido Tabellini. 2000. *Political Economics ũ Explaining Economic Policy*. Cambridge: MIT Press.
- Podesta, Federico. 2003. "Econometric Solutions vs. Substantive Results: A Crucial Trade-Off in Time-Series Cross-Section Analysis." *ECPR Conference, Marburg Germany* .
- Przeworski, Adam, Michael Alvarez Jose Antonio Cheibub Fernando Limongi. 2000. *Democracy and Development*. Cambridge: Cambridge University Press.
- Remmer, Karen. 2004. "Does Foreign Aid Promote the Expansion of Government." *American Journal of Political Science* (48):77.
- Rodden, Jonathan. 2003. "Reviving Leviathan: Fiscal Federalism and the Growth of Government." *International Organization* (57):695–729.
- Rodden, Jonathan. 2004. "Reviving the Leviathan: Fiscal Federalism and the Growth of Government." *International Organization* .
- Rodrick, Dani. 1999. "Where Did All the Growth Go? External Shocks, Social Conflict, and Growth Collapses." *Journal of Economic Growth* .

- Rodrick, Dani & Francisco Rodriguez. 2001. Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence. In *Macroeconomics Annual 2000*, ed. Ben Bernanke & Kenneth S. Rogoff. Cambridge: MIT Press.
- Rodrik, Dani, Subramanian & Trebbi. 2002. "Institutions Rule: The Primacy of Institutions over Integration and Geography in Economic Development." *IMF Working Paper* .
- Sachs, Jeffrey. 2004. "Ending Africa's Poverty Trap." *Brookings Papers on Economic Activity* (2):117–216.
- Schedler, Andreas. 2002. "The Menu of Manipulation." *Journal of Democracy* (13).
- Schraeder, Peter, Steven Hook & Bruce Taylor. 1998. "Clarifying the Foreign Aid Puzzle: A Comparison of American, Japanese, French and Swedish Aid Flows." *World Politics* (50).
- Signorino, Curtis. 1999. "Strategic Interaction and the Statistical Analysis of International Conflict." *American Political Science Review* .
- Stasagave, David. 2005. "Democracy and Education Spending in Africa." *American Journal of Political Science* (49).
- Svensson, Jakob. 2000. "Foreign Aid and Rent-Seeking." *Journal of International Economics* (51):437.
- Svensson, Jakob. 1999. "Aid, Growth, and Democracy." *Economics and Politics* (11):275.
- Tiebout, C. 1956. "A pure theory of local expenditures." *Journal of Political Economy* (64):416–424.
- Tiebout, C. 2000. "The Causes of Corruption: A Cross-National Study." *Journal of Public Economics*, (76):399.
- Tilly, Charles. 1990. *Coercion, Capital and European States A.D. 990-1990*. Cambridge: Blackwell.
- Tommasi, Mariano, Sebastian Saeigh & Pablo Sanguinetti. 2001. "Fiscal Federalism in Argentina: Policies, Politics, and Institutional Reform*." *Economia* .
- Tornell, Aaron & Philip Lane. 1999. "The Voracity Effect." *American Economic Review* (89):22–46.
- van de Walle, Nicolas. 2001. *African Economies and the Politics of Permanent Crisis, 1979-1999*. Cambridge: Cambridge University Press.
- van de Walle, Nicolas. 2003. "Presidentialism and Clientalism in Africa's Emerging Democracies." *Journal of Modern African Studies* (41).
- van de Walle, Nicolas. 2005. *Overcoming Stagnation in Aid-Dependent Countries*. Washington, D.C.: Center for Global Development.

- Vreeland, James. 2003. *The IMF and Economic Development*. Cambridge: Cambridge University Press.
- Weingast, Barry. 1997. "The Political Foundations of Democracy and the Rule of Law." *American Political Science Review* (91):245.
- Weingast, Barry & Maite Careaga. 2000. "The Fiscal Pact with the Devil: A Positive Approach to Fiscal Federalism, Revenue Sharing, and Good Governance." *Stanford U*.
- Widner, Jennifer. 1999. Reforms in Anglophone and Francophone African Countries. In *Economic Change and Political Liberalization in Sub-Saharan Africa*, ed. Jennifer Widner. Baltimore: John Hopkins.
- Young, Crawford & Thomas Turner. 1985. *The Rise and Decline of the Zairian State*. Madison: University of Wisconsin Prss.