

# Foreign Aid, Institutions, and Governance in Sub-Saharan Africa\*

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## Introduction

More than a decade ago, the World Bank argued that “underlying the litany of Africa’s development problems is a crisis of governance.”<sup>1</sup> Poor quality institutions, weak rule of law, an absence of accountability, tight controls over information, and high levels of corruption still characterize many African states today. Aid levels have been reduced in many parts of Africa during the past decade. Yet in many of the countries with poor governance records, aid continues to contribute a very high percentage of government budgets. This article explores the institutional impact of these high levels of aid and the way that large amounts of aid are delivered.

There are many reasons why governance is poor in much of sub-Saharan Africa.<sup>2</sup> Colonialism did little to develop strong, indigenously rooted institutions that could tackle the development demands of modern states. Economic crisis and unsustainable debt, civil wars, and political instability have all taken their toll over the past 2 decades and more. It is difficult to separate the impact of these problems from the possible impact of foreign aid, which is often high in countries that suffer from precisely these problems. Theory provides conflicting guidance here. On the one hand, aid can release governments from binding revenue constraints, enabling them to strengthen domestic institutions and pay higher salaries to civil servants. Aid can provide training and technical assistance to build legal systems and accounting offices. In many countries, aid personnel (sometimes expatriate) manage important government programs, and the infusion of resources and technical assistance can give an important boost to the efficiency and effectiveness of governance, if only in a partial sense. Yet despite these likely benefits, it is also possible that, continued over

long periods of time, large amounts of aid and the way it is delivered make it more difficult for good governance to develop. The research reported here suggests that this is the case in some parts of sub-Saharan Africa because of the way aid affects institutions in weak states.

Improving governance means building a better bureaucracy, increasing adherence to the rule of law, reducing corruption, and managing expenditure and revenue generation in a sustainable manner. Yet these very reforms require solving significant collective action problems, among them the tragedy of the commons, moral hazard, and more mundane free rider problems. Like public goods anywhere, improvements in governance benefit everyone, but since these benefits are nonselective, there is little incentive to sacrifice to provide them. When patterns of poor governance deepen over time and become institutionalized, the political difficulties of reform become even more challenging. Governance reforms do happen, and they can happen in poor countries. Aid can contribute.<sup>3</sup> Yet despite what we believe to be generally good intentions, the foreign aid system also poses problems for governance in aid-dependent states.

The dimensions of aid dependence and the theoretical framework are discussed in the next section of the article. The third section explores the ways in which high levels of aid, delivered over a long period of time, can affect institutions and governance in African countries, while the fourth section tests these ideas empirically. We find evidence that higher aid levels are associated with larger declines in the quality of governance, as measured by subjective indicators. We also find higher aid associated with lower tax effort in Africa. The conclusion offers some recommendations for reducing the possible deleterious impact of aid. Paradoxically, our argument is not that aid to Africa needs to be reduced; in many cases, more aid will be better. But aid needs to be delivered more selectively and in ways that reinforce a virtuous cycle of development rather than contributing to a vicious cycle of poor governance and economic decline.

### **Foreign Aid and Aid Dependence**

Foreign aid as an institution began in 1947 with the Marshall Plan, and almost immediately concerns arose over the impact of large amounts of aid on the behavior and attitudes of recipient governments.<sup>4</sup> Worried that the European countries were relying too much on external funding and not mobilizing resources themselves for their recovery, a State Department official cabled to the U.S. team negotiating the terms of the plan in Paris: "Too little attention is being paid by the participants to the elements of self-help."<sup>5</sup> As foreign aid expanded beyond Europe, other critics soon raised similar issues. From the right, Milton Friedman argued in the *Yale Review* (1957) that by strengthening governments "at the expense of the private sector" aid would "reduce pressure on the government to maintain an environment favorable to private enterprise," the engine of growth and ultimately of self-reliance.<sup>6</sup> From the left, theorists also critiqued the "pernicious dependency" created by the (capitalist) aid sys-

tem and pointed out that aid created vested interests: "Powerful classes in poor countries benefit from aid [and would] suffer from its termination."<sup>7</sup>

In the 1960s, as foreign aid expanded across more developing countries, and as aid programs grew in importance, practitioners began to emphasize that foreign aid must involve "partnership," not dependence. "There is by now a strong consensus," argued David Bell in a 1966 article in *Foreign Affairs*, "that foreign aid in all its forms will produce maximum results only in so far as it is related to maximum self-help."<sup>8</sup> In the 1970s, scholars first gave the term "aid dependence" to a set of institutional problems that seemed to be affecting Bangladesh, Malawi, and other countries receiving large amounts of aid.<sup>9</sup> Not easily linked with either the right or the left, these researchers warned again that high levels of aid could lead to specific kinds of problems. During the debt and economic crisis of the 1980s and 1990s the topic of aid dependence nearly disappeared from view, but very recently it has reentered the scholarly agenda, pushed in part by the concerns of aid agencies who have sponsored research on the topic.<sup>10</sup>

Those who write about foreign aid tend to avoid defining aid dependence concretely, but the implication is almost invariably that aid dependence is a problematic condition caused by, but not synonymous with, large transfers of aid. Roger Riddell, for example, has called aid dependence "that process by which the continued provision of aid appears to be making no significant contribution to the achievement of self-sustaining development."<sup>11</sup> Rehman Sobhan, writing in Bangladesh, calls aid dependence "a state of mind, where aid recipients lose their capacity to think for themselves and thereby relinquish control."<sup>12</sup> This article defines aid dependence as a situation in which a government is unable to perform many of the core functions of government, such as the maintenance of existing infrastructure or the delivery of basic public services, without foreign aid funding and expertise (provided in the form of technical assistance or projects). This characterizes many countries in Africa today, where, as a team of African researchers charged not long ago, many governments have developed a "cozy accommodation with dependency."<sup>13</sup>

Aid dependence cannot be directly measured, so we use a proxy that reflects "aid intensity"—net aid flows as a percentage of gross domestic product (GDP) and aid as a percentage of government expenditure. In 1980, 13 sub-Saharan countries were receiving net aid (aid inflows minus principal repayments) at levels above 10% of GDP.<sup>14</sup> By 1990, that figure had more than doubled, to 30 countries. In 1998, 21 countries continued to receive aid at that level. Almost all of them had been net recipients of aid flows at 10% of GDP for 10 years or more. In a number of countries such as Malawi, Ghana, and Zambia, aid has funded more than 40% of government expenditures, on average, for nearly 20 years. Table 1, based on data from the African Development Bank, shows the 27 sub-Saharan countries receiving at least 25% of net aid as a percentage of government expenditures in 1999. Seventeen of these countries receive net aid equivalent to more than half of all government expenditures.

TABLE 1

OVERSEAS DEVELOPMENT ASSISTANCE (ODA) AS A PERCENTAGE OF GOVERNMENT  
EXPENDITURE, SELECTED SUB-SAHARAN AFRICAN COUNTRIES, 1999

Country	Percentage
Rwanda	99
Malawi	89
Mauritania	87
São Tomé and Príncipe	84
Zambia	72
Cape Verde	67
Guinea Bissau	67
Chad	65
Central African Republic	63
Tanzania	62
Niger	58
Burkina Faso	57
Mali	55
Madagascar	54
Senegal	54
Uganda	51
Benin	51
Djibouti	47
Sierra Leone	45
Comoros	45
Burundi	43
Guinea	41
Ethiopia	37
Gambia	36
Ghana	30
Togo	27
Cameroon	25

SOURCE.—Calculated by authors from data supplied by the African Development Bank.

NOTE.—ODA is net aid, which equals aid disbursements minus repayments of principal.

All of these “aid-dependent” countries are low income, and as we have noted, the effects of aid dependence are perhaps difficult to separate out from a constellation of problems facing many low-income countries. At the same time, some countries with low incomes per capita are less dependent on aid than others, suggesting that aid dependence is not simply a function of poverty. In addition, several decades of high levels of aid flows are likely to have deeply affected the operations of a government and the incentive structure. The aid and the processes surrounding its delivery create incentives and informal institutions—patterns of behavior, norms, codes of conduct—both in donor organizations and in countries receiving high levels of aid. Once in place, these incentives and institutions have proven quite resistant to change.

### **What Is Causing Africa’s Continuing Crisis of Governance?**

The governance crisis in Africa continues more than 10 years after the World Bank identified it as a major contributor to Africa’s development problems. “Governance” has been added to the many conditionalities imposed as a requirement for funding from the International Monetary Fund (IMF), World Bank, and bilateral donors. Corruption receives the lion’s share of the press,

but related problems include inadequate official information, weak mechanisms of accountability, poorly enforced rule of law, and bureaucracies that are ineffective and unresponsive. Poor governance has multiple causes, and once governance begins to decline, a vicious cycle of inadequate revenues, low morale, and poor performance is all too easily created. Here, we touch on some of the probable causes of poor governance in Africa separate from the system of aid.

First, state capacity and institutions of governance in many African countries have never been particularly strong. The newly independent nations of Africa were not well prepared for self-government, and many faced ethnic tensions that had been exacerbated by colonial rule. Local skill bases were weak. Only six universities had been established in all of sub-Saharan Africa, and in 1960 postsecondary enrollment levels were about one-sixtieth of those in Asia and Latin America.<sup>15</sup> During their occupation of India, the British had established the Indian Civil Service, providing a dense network of several generations of well-trained civil servants with a growing tradition of meritocracy. Few countries in Africa had any comparable experience (Mauritius is an exception). In Nigeria, for example, only 15% of the upper-level civil service positions were filled by Nigerians as independence drew close.<sup>16</sup> In other countries, the percentage was even lower.<sup>17</sup>

After independence, the move toward one-party states did little to build local institutions. As Arthur Rivkin pointed out in 1968, “the history of universities, courts, civil services, parliaments—to say nothing of private or therefore private voluntary groups—in Africa has been one of subordination, take-over, and destruction by the one party . . . [this] has made it all but impossible for truly national institutions representative of and responsive to the total nation to develop and grow.”<sup>18</sup> The bureaucracy suffered from these weaknesses. Pressures for accountability were low. In 1990 there was only one qualified accountant in the entire public sector in Burundi, and Mali had only six.<sup>19</sup>

Second, economic crisis is clearly a contributor. Early in the postindependence period, a number of African countries experienced balance of payments problems and borrowed from the IMF to cover shortfalls in foreign exchange. When the first and second oil shocks sent petrodollars rushing into commercial banks, a new source of low-interest loans became easily available. However, tight money policies under the new Reagan administration in the United States made interest rates soar, and the shock of Mexico’s default in 1982 dried up commercial lending. Africa’s economic crisis has its origins in this period. As governments postponed difficult adjustment, revenues fell. Economic crisis and inflation shrank government salaries. In Ghana, permanent secretaries heading ministries were earning salaries in 1983 (before their “structural adjustment”) that in real terms were only 11% of the 1975 level.<sup>20</sup> In countries like Sierra Leone, government offices were often largely empty during this period, as unpaid staff tried to survive by selling cigarettes and candies on street corners or retreating to rural farms to grow food for their

families. Across Africa, attempts at reform were largely unable to reverse these salary trends. As recently as the 1990–96 period, real wages in a representative sample of African civil services declined an average 2% annually.<sup>21</sup>

Finally, much of Africa has experienced political instability and war. More than half of the countries in sub-Saharan Africa have had significant political instability since independence, including civil war and violent coups.<sup>22</sup> In the past few years, almost a quarter of the countries in the region have been involved in regional or civil wars or are experiencing substantial internal strife.<sup>23</sup> Poor leadership is a continual problem.<sup>24</sup> Political instability disrupts domestic revenue generation both because investment, production, and trade generally drop during the period of instability and because tax collection becomes much more difficult. This, in turn, increases the dependence of countries on aid receipts.

Our research suggests that, as expected, economic decline and political violence have had a negative impact on governance, as measured by conventional indicators. However, this is not the whole story. As we show later in the article, when we control for changes in per capita income and for political violence, we still see a negative relationship between aid/gross national product (GNP) and the quality of governance. Could this be because the aid system itself provides incentives and informal rules that reinforce the political constraints faced by reformers in aid-dependent countries and in donor agencies?

### **How Might Foreign Aid Affect Governance?**

High levels of aid have the potential to improve governance, but they can also work against governance improvements. On the positive side, high levels of aid channeled to governments with clear development agendas can be used to improve the quality of the civil service, strengthen policy and planning capacity, and establish strong central institutions. In the East Asian region, South Korea and Taiwan are good examples of this, while Botswana shows that the same processes can also work in sub-Saharan Africa.<sup>25</sup> Aid can release the binding constraint of low revenues for governments committed to development.<sup>26</sup> Some researchers have found that high levels of aid (at around 40%–45% of GDP) promote growth when given to countries with good macroeconomic policies.<sup>27</sup> Positive levels of economic growth, in turn, can also generate new revenues for funding improvements in government quality.

Yet high levels of aid might also block governance improvements in at least two major ways. First, the way large amounts of aid are delivered can weaken institutions rather than build them. This can happen through the high transaction costs that accompany aid, the fragmentation that multiple donor projects and agendas promote, problems of “poaching,” obstruction of opportunities to learn, and the impact of aid on the budget process. Less directly, but just as important, high levels of aid can create incentives that make it more difficult to overcome the collective action problems involved in building

a more capable and responsive state and a more effective foreign aid system. Both of these are discussed in the following sections.

#### *Aid Dependence and Institutional Destruction*

The institutional impact of aid in weak African states can be quite significant, and this has not gone unnoticed in studies financed by the donor community itself.<sup>28</sup> In one of the most insightful critiques, published in 1984, consultant Eliot Morss described the institutional “destruction” large numbers of donor projects could wreak in small African states with low absorptive capacity.<sup>29</sup> Yet the problem continued unabated. In 1989, a donor study in one country that was suffering from economic crisis recommended reducing the 800 existing aid projects to a “more manageable” 300 or 400. Three years later, the number of projects had climbed to 2,000.<sup>30</sup> The multiplication of agendas (of which “good governance” is but one of the latest) for reform has similar consequences.

Each project (or agenda) requires government oversight and reporting. In Ghana, one of the most heavily aided African countries, senior officials each spent as much as 44 weeks a year facilitating or participating in donor supervision missions, time they were unable to devote to their ministries’ own priorities.<sup>31</sup> The aid community clearly recognizes the problem. As the World Bank has commented, “donors may fragment central capacity for policy formation, entering with ministries into bilateral deals on multiple projects without determining whether their cumulative effects are collectively sustainable or mutually consistent.”<sup>32</sup> Yet donors and African countries seem unable to solve the problem of institutional destruction.<sup>33</sup>

Related to the high transaction costs and fragmentation that accompany high levels of aid are the direct effects of donor competition for scarce staff and the provision of technical assistance that substitutes for the government’s own capacity. Because governments cannot possibly manage the multiple projects that donors want to fund, donors have set up units independent from the government with off-budget funding. For example, a recent Organization for Economic Cooperation and Development (OECD) study of the aid system in Mali showed that between 1985 and 1995, the majority of donors used project implementation units rather than working through the regular bureaucracy; some donors, including the U.S. Agency for International Development, the World Bank, and Germany (GTZ), used them for all of their projects in Mali.<sup>34</sup> Part of the path to good governance involves learning. Providing technical assistants who do not transfer skills but simply do the work themselves, or setting up bypass units, limits a central (or local) government’s ability to learn skills for more effectively managing and administering. Governance improves by the continual practice of these skills; this applies to the crafting of policy as much as to the implementation of projects. A recent World Bank study on aid and reform in Africa highlighted this effect of aid dependence: “In aid dependent countries such as Zambia, donor conditionality undermines genuine policy learning. Once they understand that donors mean

to set policy, ministries become passive. Individual officials have negative incentives to disagree with the donors since this will only serve to delay the arrival of the much-needed resources.”<sup>35</sup>

In addition, with multiple projects to administer, donors require local staff, and in many countries, trained people are scarce. Donors consequently bid up the price of capable staff, pulling them both from the private (productive) sector and from the government.<sup>36</sup> Not long ago, a donor-funded agricultural project in Kenya hired seven local economists away from the civil service, offering monthly salaries of US\$3,000–\$6,000, compared with government salaries of approximately US\$250.<sup>37</sup> This “poaching” weakens institutions as it creates resentment and lowers morale for those left behind.

Donor projects that remain in the government often come with technical assistance (TA). Although some African governments, such as those in Mauritius and Botswana, have made effective use of TA, it can also be, in the hyperbolic words of a former World Bank vice president, “a systematic destructive force which is undermining the development of capacity . . . most of this technical assistance is imposed, it is not welcome and there is no demand for it really, except on the donor side.”<sup>38</sup> A recent history of the World Bank echoed this sentiment in its charge that in countries with weak institutions, “the Bank’s interventions may have delayed the development of effective, self-reliant cadres and institutions.”<sup>39</sup>

Numerous agendas and projects, with numerous donors, can render ineffective any government’s efforts to manage its aid resources. In Senegal, for example, the Ministry of Planning is responsible for evaluating and approving all investment projects, but in 1995 only half of the aid-funded projects went through this process. The others were negotiated directly between line ministries and donors.<sup>40</sup> Mali’s National Planning Directorate (DNP) is supposed to appraise donor projects and ensure that they follow national priorities. Yet, as a recent review found, “in practice the DNP is short-circuited by donors and line ministries which prepare and negotiate projects directly among themselves, thus exacerbating inter-ministerial competition for foreign aid.”<sup>41</sup> The capacity-diminishing problems with projects are mirrored in program and policy aid, and even in the HIPC (highly indebted poor countries) debt-relief programs, with their well-meant but complex requirements for new, poverty-focused spending in states that have a history of weak capacity.

Finally, aid may reduce tax receipts directly, contributing to the cycle of low revenues and fiscal deficits. Aid projects import equipment such as vehicles and consumption goods for their staff without paying import duties. Expatriate personnel working for aid agencies and NGOs rarely are required to pay local income taxes. At one point in Tanzania, the total for government wages and salaries (which are taxed) was \$100 million, while the salary bill for technical assistants supplied under aid programs (and not taxed) was \$200 million.<sup>42</sup> To the extent that the untaxed aid experts and their untaxed vehicles and property substitute for the government workers or for the private sector (which would be taxed), tax revenues are reduced.



*Aid Dependence, Incentives, and Collective Action*

Aid dependence can also contribute to a second set of problems, all related to the incentives inherent in the system. Barbara Geddes argues that governments in weak states remain weak because they are unable to resist the pressures from powerful vested interests to distribute funding and resources in ways that dilute capacity and lower effectiveness. High levels of aid can make it more difficult to solve the collective action problems that are inherent in reform efforts, create moral hazards for both recipients and donors, perpetuate both a “soft budget constraint” and a “tragedy of the commons” with regard to the future budget, and weaken the development of local pressures for accountability and reform.<sup>43</sup>

*Solving collective action problems.* High levels of aid in countries where the political leadership does not have reform on the agenda are likely to reduce the incentive to cooperate in the sacrifices necessary for reform to occur. Countries in economic crisis need to concentrate their resources on a small number of critical activities. Yet aid creates an incentive to expand operations to include all the initiatives donors want to fund. Few African leaders (Eritrea’s President Isaias Afwerki being an exception, at least until the outbreak of war with Ethiopia) want to tell the donors “no” and forgo opportunities today, despite the problems this creates for medium- and long-term sustainability. Political elites have little incentive to change a situation in which large amounts of aid provide exceptional resources for patronage and many fringe benefits (vehicles, study tours, salary increments, etc.) that would not otherwise be available to officials in low-income countries.

*Creating moral hazard.* Moral hazard implies a situation in which having an insurance policy (or in this case, access to external resources) actually induces riskier (undevelopmental) behavior. As with many of the problems discussed in this section, the fear that aid might make governments less likely to put in place the policy framework, local funds, and trained personnel needed for development underpinned the early emphasis on “self-help” both in the Marshall Plan and in the early bilateral aid programs.<sup>44</sup> If aid were clearly a supplement to the government’s own efforts in a project or program, moral hazard would be less likely to arise, and aid would be more likely to be a true partnership, supporting programs “owned” by governments. Over time, however, the emphasis on self-help dwindled, and problems of moral hazard arose.

The moral hazard problem operates on two levels. First, it is possible that a history of high levels of aid may make it more likely that a government will allow corruption in the customs bureau or an ineffective internal revenue service to continue, or more likely that “credible constraints” on overspending and monetizing the deficit will be postponed, particularly if these reforms will eventually lead to a decline in budgetary support. Aid-dependent countries may be inclined to underutilize their available sources of tax revenues. Middle-income countries have increased tax revenue as a percentage of GDP from an average 16.5% (1972–76) to an average 21.1% (1995–99), but low-income

countries (which receive more aid, on average) have seen their tax revenue fall from an average 17% to 14.3% over the same period.<sup>45</sup> Seventy-one percent of the African countries receiving more than 10% of GDP in aid in 1995 were also in the group of countries judged in an IMF study to have lower than expected tax effort.<sup>46</sup> It is possible that many years of being “rescued” may make aid-dependent governments less inclined (or less able) to adjust quickly through their own, proactive decisions, when the prices of their exports drop or that of oil imports rises.

However, it is also the case that moral hazard operates within donor agencies. Staff face a moral hazard in that they have no internal sanctions when aid loans and grants fail to improve development performance in recipient countries. This has made them more likely to continue programming aid in situations where the risk of failure is high and the costs of failure do not fall on the aid agency. In addition, high levels of debt may increase the operation of moral hazard. As a recent study argued, donors may feel pressure to continue making loans to African countries who already owe them substantial amounts of money.<sup>47</sup>

*Soft budget constraints.* Economic crises require governments to restructure their budgets. Yet high levels of aid effectively provide a “soft budget constraint,” where governments lose the incentive and sometimes the ability to calculate what they can afford to invest in and maintain. Expenditures bear little relationship to revenues; external aid in our sample averaged 42.8% of government expenditures across the 28 countries with data available for the 1982–97 period. In many countries, large amounts of aid sidestep the budget completely, making the development of a government budget and annual accounts “a deceptive mirage.”<sup>48</sup>

Hard budget constraints can include rules that limit the size of the deficit or the ability of governments to carry the deficit into the next budget. They may limit deficit financing to short-term debt or require a referendum before a government can issue bonds or undertake other long-term debt.<sup>49</sup> Many countries in Latin America have legislated these kinds of controls, out of fatigue with seemingly endless cycles of populist expansion and orthodox contraction. In Africa’s aid-dependent countries, the “soft budget constraint” expectations that deficits will be met by foreign aid provide incentives that may stop these kinds of institutions from developing. Several countries have, however, adopted cash budgets, where expenditures are limited (in theory) to the actual revenues raised in the same period. Although in at least one case (Zambia) the limitations of the cash budget aroused considerable interest in reforming the tax administration in order to expand available revenues, government officials soon got around the limits of the budget by passing the costs of nonpayment on to suppliers and government workers who were themselves forced to take promissory notes instead of cash.<sup>50</sup>

*The tragedy of the commons.* Genuinely hard budgets are essential for keeping present and future government commitments at sustainable levels. Failing to take future budgets into consideration contributes to a “tragedy of

the commons,” as E. Campos and S. Pradhan have argued. Bureaucrats, politicians, and donors create future claims on the recurrent budget through uncontrolled investment spending. They view the future budget “as a common resource pool which they can dip into with little or no cost.”<sup>51</sup> A collective action problem results: it is in the interests of all actors today to continue the benefits they get from giving and receiving aid, even though this aid will create problems for future governments who will likely not have the foreign exchange to repay the debts incurred nor the tax revenues to pay for the recurrent costs of the investments. As with many issues surrounding aid dependence, the problem of the recurrent cost implications of donor-funded investments surfaced several decades ago.<sup>52</sup> In a 1979 article in *Finance and Development*, P. Heller noted that “it is extraordinary that there is so little information on a problem of such significance to the joint goals of donors and borrowers alike.”<sup>53</sup> As the debt crisis was becoming apparent in the early 1980s, C. Gray and A. Martens noted that “donors have to accept some responsibility for pushing non-viable or overblown projects and programmes” and exacerbating the recurrent cost problem.<sup>54</sup>

*Restructuring accountability.* Finally, large amounts of aid can reduce incentives for democratic accountability. Bargaining over revenues and taxation may be critical for the development of accountability, as it was historically in Europe. However, aid as a source of revenue parallels other “non-earned” revenue sources, particularly the rents from mineral extraction. Rentier states face fewer internal pressures to improve state capacity and accountability. When the flow of revenue is little affected by government efficiency, there is little incentive to improve state capacity. When revenues do not depend on the taxes raised from citizens and businesses, there is less incentive for government to be accountable to them. Aid dependence structures accountability as something between the executive branch of government and aid donors rather than between state and society, weakening this important aspect of governance. But in addition, when citizens have little idea of the domestic budget or of the total loan obligations being undertaken by their government, the basic information necessary for accountability is missing. In Tanzania, for example, 70% of donor financing was not included in the 1996–97 budget, and yet donors were financing more than 30% of the government’s expenditures.<sup>55</sup>

Theoretically, then, large amounts of aid, and the way aid is programmed, may contribute directly to the weakening of the institutions of the state and the erosion of capacity. As outlined above, this can happen through the administrative burden of multiple projects and donor-initiated agendas exacerbated by the poaching of staff, the creation of bypass project management units, and possibly a net reduction in tax revenues. At the same time, large amounts of aid can create incentives that make solving the collective action problems required for governance reforms less likely: moral hazard, soft budget constraints, the tragedy of the commons, and shifts in accountability. In the next section we test these ideas against the empirical evidence.

**The Quality of Governance and Foreign Aid in Africa: Analysis**

Although the international donor community has sponsored a number of policy studies that are concerned with aid and governance, there has been until recently almost no attention to this subject in the scholarly literature. Our study contributes to a small but growing group of efforts to unpack the relationship between aid and governance, using quantitative measures of governance. In one of the first efforts in this vein, A. Alesina and B. Weder tested the hypothesis that donors might punish governments that are more corrupt by giving less aid. However, they found that, in fact, aid and corruption tended to be positively correlated.<sup>56</sup> S. Knack examined aid and governance quality (using measures from the International Country Risk Guide [ICRG], a commercial service providing information on political risks to overseas investors and lenders measures, discussed below), finding a significant, negative relationship between the two among all recipient nations for the period 1982–95.<sup>57</sup> In a study restricted to sub-Saharan Africa, A. Goldsmith found that aid was positively associated with one measure of governance, the Freedom House index of political freedom.<sup>58</sup> Our study also examines governance in Africa but uses the ICRG measure of governance, which focuses on bureaucratic quality, rule of law, and corruption. Although no existing measure of governance can capture all of the impact suggested by theory, we believe that the ICRG data are the best suited for testing the possible impact of aid on the aspects of governance that most concern us theoretically and that are highlighted in the review above.<sup>59</sup> We also use a measure of tax effort as a preliminary test of the hypothesis that higher levels of aid affect state capacity by reducing local incentives to generate revenue, the sine qua non of effective governance.<sup>60</sup>

Our data show that in Africa, higher aid levels are associated with larger declines in the quality of governance and in tax revenues as a share of GDP. Obviously, causality can go in either direction, as donors may respond (either favorably or unfavorably) to an observed deterioration in governance. When we correct for the potential endogeneity of aid, however, we see an even stronger relationship between aid levels and declines in the quality of governance and in the tax share of GDP. These relationships hold when we control for economic decline and political violence, two factors that might also affect governance and tax collections.

*Data on Governance and Aid Dependence*

The quality of governance is measured by subjective indexes from the ICRG. Among the various indicators of the quality of governance used in empirical research on development, the ICRG data are unique in covering the majority of nations in Africa over a relatively long period of time.

These ICRG data have been previously used by S. Knack and P. Keefer, D. Rodrik, and others in explaining cross-country differences in economic performance.<sup>61</sup> The quality of governance index from ICRG used here is an 18-point scale, created by summing the following three six-point scales: cor-

ruption in government, bureaucratic quality, and the rule of law. The criteria used by ICRG in coding these measures are detailed in the appendix. The ICRG ratings are published monthly. We created annual values by taking the mean of the 12 monthly observations for each year. The ICRG ratings have been published since 1982 and are available in a consistent format through 1997.<sup>62</sup>

Of the 32 sub-Saharan African countries included in the ICRG, 17 have been included since 1982, 8 were added in 1984, 6 more added in 1985, and Namibia was added in 1990. The largest decline in the 18-point index belongs to Niger, which fell from a value of 12 in 1985 (when it was added to the ICRG) to 4 in 1997. The largest increases were by Ghana, which rose from 3 in 1982 to 10 in 1997, and by Namibia, which rose from 8 in 1990 to 15 in 1997. The mean change was an increase of 1.2 points, with a standard deviation of three points.

We supplement the ICRG data on governance with an objective measure, central government tax collections as a share of GDP. For comparability with the ICRG results, we measure the change in the tax share over the 1982–99 period. The tax share change is available for only 24 countries in the sample; the share fell in 13 and rose in only 11 countries. Sudan experienced the largest decline, from 81% to 6.8% of GDP. The largest increase was for Ghana, from 4.8% to 13.2%. There is a positive but low correlation of .11 between the change in the ICRG index and the change in the tax share.

Two measures of aid intensity or dependence are used in the empirical analysis: “official development assistance” as a percentage of GNP and as a percentage of government expenditures. Annual data are available from the *World Development Indicators*, based on aid data provided by the OECD’s Development Assistance Committee. Aid data include grants and loans but are net rather than gross, that is, current loan repayments are subtracted. Military assistance is excluded. Most analyses of the impacts of aid use aid as a percentage of GNP or GDP.<sup>63</sup> However, aid as a percentage of central government expenditures is a useful alternative measure of aid dependence.<sup>64</sup>

Averages were constructed for aid/GNP and for aid as a share of government spending for each country over the period for which both aid and ICRG data were available. Values for aid/GNP range from 0.3% for South Africa to 52.6% for Guinea-Bissau, with a mean of 14.3% across the 32 countries and a standard deviation of 12.6%. Aid as a share of government spending ranges from 0.6% for Nigeria to 103.4% for Burkina Faso, with a mean of 42.8% across the 28 countries with available data and a standard deviation of 30.2%.<sup>65</sup>

Aid/GNP, as well as aid/government expenditures, averaged by country over the 1982–97 period are correlated at only .70 (significant at .0001). Therefore, most tests below will report results using both measures. However, analyses using aid/GNP provide the stronger tests because of more complete coverage: aid/GNP is available for 32 African countries covered by the ICRG countries, but aid as a share of government spending is available for only 28

TABLE 2  
SUMMARY STATISTICS FOR BASIC SAMPLE USED IN CROSS-SECTIONAL ANALYSES

Variable	<i>N</i>	Mean	SD	Minimum	Maximum
ICRG change	32	+1.21	3.01	-8	+7
ICRG initial value	32	7.30	2.96	3	13.5
Population change/initial population	32	.45	.13	.09	.63
GDP change/initial GDP	32	.43	.39	-.32	1.46
Political violence	32	.46	.31	0	1
Aid/GNP, mean	32	14.3	12.6	.26	52.6
Aid/government spending, mean	28	42.8	30.2	.58	103.4
Tax revenue/GDP change	24	-4.3	16.0	-74.16	8.3
Tax revenue/GDP, initial value	24	18.7	15.0	4.8	81.0

of them.<sup>66</sup> Moreover, for most of these countries, aid/GNP is available for every year over the period, while there are some gaps in the time series on aid/government spending for many countries.

“Official development assistance” (ODA) includes grants and loans with a grant element of more than 25%. Studies by C. Burnside and D. Dollar and by J. Svensson analyze the impact of aid on growth using a data set constructed by C. Chang, E. Fernandez-Arias, and L. Servan that includes only the grant component of loans.<sup>67</sup> In their measure of “effective development assistance” (EDA), Chang, Fernandez-Arias, and Servan make several adjustments intended primarily to reflect more accurately the real cost to donors of providing aid, a concept that is not of concern to this analysis. In particular, grants tied to technical assistance were excluded from EDA because of the quid pro quo nature of such aid. Technical assistance, however, could have important effects on the administrative capacity of recipient governments. Although results reported below are based on ODA rather than EDA data, all of the findings are robust to the use of EDA. As a share of national income averaged over the 1982–97 period, EDA and ODA are correlated at .98, so it is not surprising that results would be similar.

#### *Data Analysis*

This section tests the hypotheses that high aid levels reduce the quality of governance and tax collections in Africa. The dependent variables analyzed are the end of period value minus the initial value for the ICRG index and for the tax share.<sup>68</sup> Independent variables include the initial value of the ICRG index or tax share, the change in population and in per capita GDP (expressed as a fraction of their initial values) over the period, a measure of political violence, and a measure of aid intensity. We discuss each of these in turn (see table 2).<sup>69</sup>

Inclusion of the initial ICRG value or tax share value captures regression-to-the-mean effects and controls for the limited opportunity of low- and high-rated countries, respectively, to decrease and increase their scores (the ICRG

index is bounded by zero and 18, and the tax share is bounded by 0% and 100%). If there are economies of scale in establishing effective institutions or tax collection agencies, as T. Srinivasan suggests, population increases could be associated with increases in the ICRG index or tax share.<sup>70</sup> Including the change in population addresses this possibility.

Increases in per capita income reflect a greater volume and size of transactions, increasing the benefits of developing institutions such as commercial codes and their associated adjudication and enforcement mechanisms.<sup>71</sup> Higher incomes also might make it more feasible and worthwhile to expand the tax base and set up more efficient tax administration procedures.

Changes in income might influence ICRG ratings even if there is no causal relation. Where it is difficult to obtain information on corruption, bureaucratic quality, and so forth, the ICRG might infer institutional quality in part from observations of economic performance. If so, and if rapidly growing countries have increasing institutional quality and low levels of aid—or if slowly growing countries have declining institutional quality and high levels of aid—failing to control for changes in per capita income could build in a spurious negative relation between aid dependence and the quality of governance.

Failing to control for political violence also could produce a spurious correlation between high aid levels and either deteriorating governance or declining tax revenues. Conflict can attract humanitarian aid and postconflict rehabilitation assistance. Violence also weakens institutions, undermining the rule of law and making corruption more likely. Conflict may increase government's incentives to tax but can also impair its capacity to collect revenues. Violence, of course, may also reduce GDP, so the net effect on the tax share of GDP is ambiguous. We measure political violence as the proportion of years, for each country, in which there were one or more incidents of violent domestic unrest or conflict. Data are from R. Bates et al.<sup>72</sup> Angola, Somalia, and Sudan had conflicts in every year, so are coded as one (i.e., 100%). The mean value among the 32 countries is .46 (46%), with a standard deviation of .31.

The quality of governance may be influenced by other factors such as religious or legal traditions.<sup>73</sup> A convenient implication of using the change in the ICRG index from 1982 to 1997 as the dependent variable is that factors such as these that are invariant over very long periods of time are unlikely to matter much. In contrast, it is unlikely that the quality of governance would have fully adjusted to aid dependence (or to political violence) already by the beginning of the sample period considered here. Aid's share of GDP in sub-Saharan Africa in the 1990s was five times as high as in the 1960s and three times as high as in the 1970s.<sup>74</sup>

Table 3 presents results using the change in the ICRG index as the dependent variable. Columns 1 and 2 report ordinary least squares (OLS) regression results, testing the effects of aid/GNP, and of aid/government spending, respectively, on the quality of governance. A very strong regression-to-

TABLE 3  
AID DEPENDENCE IN AFRICA AND THE ICRG QUALITY-OF-GOVERNANCE INDEX

	OLS METHOD		2SLS METHOD	
	Column 1	Column 2	Column 3	Column 4
Aid variable	Aid/GNP	Aid/government	Aid/GNP	Aid/government
Constant	9.836 (3.371)	7.827 (3.514)	10.228 (2.409)	8.322 (2.470)
Initial ICRG index value	-.778** (.189)	-.616** (.190)	-.776** (.144)	-.610** (.165)
Population change/initial population	-3.708 (4.105)	-.672 (4.162)	-4.116 (3.250)	-.573 (3.217)
GDP population change/ initial GDP population change	1.528 (.960)	.931 (1.275)	1.603 (.978)	.895 (1.060)
Political violence	-2.366 (1.324)	-2.345 (1.735)	-2.324 (1.280)	-2.517 (1.636)
Aid	-.061 (.038)	-.023 (.013)	-.080* (.033)	-.034* (.014)
<i>N</i>	32	28	32	28
Mean, dependent variable	+1.21	+1.75	+1.21	+1.75
<i>R</i> <sup>2</sup>	.60	.49	.60	.51
Standard error of estimate	2.09	1.98	2.10	2.01

NOTE.—Dependent variable is the ICRG quality-of-governance index. Standard errors are in parentheses. Instruments in 2SLS include infant mortality in 1980, initial (log) population, initial (log) GDP per capita, and French, British, Portuguese, and Belgian former colony dummies. Note that *R*<sup>2</sup> does not have its usual interpretation in 2SLS.

\* Indicates significance at .05 level for two-tailed tests.

\*\* Indicates significance at .01 level for two-tailed tests.

the-mean effect is found: other things being equal, a country with an initial ICRG value 1 unit greater than a second country will experience a decline in the index of about 0.7 units. Changes in population have no significant effect. Increases in GDP per capita are associated with a rising ICRG index, as expected, but this effect is not statistically significant.

Political violence is associated with deteriorating governance, as expected, but the coefficients are significant only at the .08 and .19 levels in columns 1 and 2, respectively. The violence coefficient in column 1 of -2.4 indicates that seven additional years with violent incidents over the 1982-97 period reduces the quality of governance index by about one point out of 18.

The aid coefficients in columns 1 and 2 are negative, consistent with the hypothesis that high levels of aid erode the quality of governance. Despite being based on so few observations, these coefficients are (at least marginally) statistically significant. In column 1, aid/GNP is significant at the .12 level for a two-tailed test. In column 2, aid/government spending is significant at the .10 level. A one standard deviation change in aid/GNP is associated with a .26 standard deviation change in the quality of governance index. By com-



parison, a standard deviation change in per capita income is associated with a change of only .2 standard deviations in the ICRG index. The aid coefficient in column 1 indicates that a 17 percentage point rise in aid's share of GNP—for example, Namibia (3.6%) or Botswana (5.3%) versus Tanzania (21.6%) or Zambia (22.2%)—reduces the ICRG index by one full point.

The coefficient in column 2 indicates that a standard deviation change in aid's share of government spending is associated with a .28 standard deviation change in the quality of governance index. An increase of about 45 percentage points in aid as a share of government spending (e.g., Botswana's 16% vs. Guinea's 60%) reduces the ICRG index by one point, on average. Although 45 percentage points sounds like a large increase, aid's share of government spending averages 43% for the 28 countries with available data and equals or exceeds 45% in 11 of the countries.

The ICRG variables technically are only ordinal and not cardinal measures. Ordered logit is the estimation method designed for ordinal dependent variables.<sup>75</sup> Using ordered logit estimation produces slightly stronger associations between aid and governance than does OLS. The coefficient (and standard error) for aid/GNP is  $-.065$  (.031), significant at the .04 level. The coefficient (and standard error) for aid/government spending is  $-.022$  (.012), significant at the .07 level. These results are consistent with the hypothesis that aid dependence can undermine the quality of governance.

Table 4 presents results using the change in tax revenues as a share of GDP as the dependent variable. Columns 1 and 2 report OLS results, testing the effects of aid/GNP and of aid/government spending, respectively, on tax effort. Again, a strong regression-to-the-mean effect is found, as higher initial tax effort is associated with larger declines over the period. Population and income are unrelated to tax effort, while political violence significantly reduces it. So does higher aid. The aid coefficient in column 1 is easiest to interpret because it is in the same units (percent of GDP) as the dependent variable. Each percentage-point rise in aid/GNP is associated with a fall of about one-third of a percentage point in tax revenues/GDP. This highly significant tax-displacing impact of aid is larger than that estimated by P. Boone and smaller than that estimated by T. Feyzioglu, Vinaya Swaroop, and Min Zhu.<sup>76</sup>

#### *Specification Changes*

Results from tables 3 and 4 are not very sensitive to reasonable changes in model specification, indicating that the relationship between high aid levels and deteriorations in government is fairly robust statistically. As one change in specification, we substituted each country's median value of aid over the 1982–97 period for the mean value in our tests. The median value is less likely than the mean value of aid to be driven up by a small number of extreme values for a particular country. The median turns out to be correlated at .98 with the mean, and results are unaffected by this substitution.

As a second change, we omitted the change in per capita income from the regressions. Conceivably, aid has some positive effects on the quality of

TABLE 4  
AID DEPENDENCE IN AFRICA AND TAX REVENUES AND GDP

	OLS METHOD		2SLS METHOD	
	Column 1	Column 2	Column 3	Column 4
Aid variable	Aid/GNP	Aid/government	Aid/GNP	Aid/government
Constant	22.634 (5.702)	26.043 (5.861)	23.287 (5.412)	26.390 (5.177)
Initial tax share	-.949** (.072)	-1.044** (.075)	-.956** (.070)	-1.050** (.073)
Population change/initial population	1.000 (9.385)	.533 (9.611)	.840 (9.250)	.462 (9.471)
GDP population change/initial GDP population change	.444 (3.236)	-.888 (3.179)	.682 (3.370)	-.858 (3.204)
Political violence	-14.485** (3.616)	-11.764** (3.681)	-14.708** (3.674)	-11.737** (3.721)
Aid	-.338** (.090)	-.137** (.048)	-.376** (.085)	-.142** (.046)
<i>N</i>	24	24	24	24
Mean, dependent variable	-4.26	-4.26	-4.26	-4.26
<i>R</i> <sup>2</sup>	.89	.89	.89	.89
Standard error of estimate	6.09	5.92	6.10	5.92

NOTE. — Dependent variable is the change in the tax share. Standard errors are in parentheses. Instruments in 2SLS include infant mortality in 1980, initial (log) population, initial (log) GDP per capita, and French, British, Portuguese, and Belgian former colony dummies. Note that *R*<sup>2</sup> does not have its usual interpretation in 2SLS.

\*\* Indicates significance at .01 level for two-tailed tests.

governance that is captured by change in per capita income, one of our control variables. Specifically, suppose that aid increases per capita income, which in turn improves institutional quality. Controlling for changes in per capita income could then bias the aid coefficients downward. However, aid, on average, is not correlated with improvements in income in other studies.<sup>77</sup> Moreover, omitting the change in per capita income as a control variable does not affect our results.

#### *Reverse Causation*

The data analysis presented in the first two columns of tables 3 and 4 ignores the possibility that aid levels may be influenced by the quality of governance, rather than the other way around. Correcting for the possible endogeneity of aid in this section, however, the evidence indicates that high levels of aid are the cause rather than the result of deteriorating governance.

Aid coefficients in columns 1 and 2 of these tables could be the product of reverse causation. If donors were to steer more aid toward those countries they perceive to be experiencing deteriorations in the quality of governance, OLS estimates would be biased upward in absolute value and would overstate the adverse impact of aid on governance. However, donors arguably more

often do the opposite, rewarding nations that exhibit improving institutional quality by directing more aid to them, as these are the countries less likely to waste whatever aid they receive. For example, the U.S. Agency for International Development very explicitly directs aid toward countries that appear to be making greater progress in the areas of democracy and improved governance. Similarly, the Netherlands and other bilaterals have been influenced by the aid effectiveness literature to employ greater selectivity on providing aid. The World Bank's International Development Administration (IDA) aid to poor nations is allocated in part based on favorable assessments of countries' public sector management—including the rule of law, corruption, and bureaucratic quality, among other dimensions of governance.<sup>78</sup> If reverse causation takes the form of aid flowing toward countries with improving rather than deteriorating governance, then columns 1 and 2 estimates actually understate the true adverse impact of aid on governance. In tables 3 and 4, the last two regressions address these endogeneity issues through two-stage least squares (2SLS) estimation.

Coefficients for the exogenous component of aid are negative and statistically significant, as shown by 2SLS results in the last two columns of tables 3 and 4. The aid coefficients are larger in absolute value than in the OLS regressions (cols. 1 and 2). The aid coefficient in column 3 of table 3 indicates that a 12 percentage point increase in aid/GNP reduces the quality of governance index by one point. The aid coefficient in column 4 indicates that a 30 percentage point increase in aid's share of government spending reduces the quality of governance index by one point.

The fact that aid coefficients are larger (in absolute value) in the 2SLS tests than in OLS is consistent with the view that, controlling for changes in recipient need as measured by per capita income changes, donors do not in general direct more aid toward countries with deteriorating institutional quality. If they did, this endogenous effect would be captured by the OLS coefficients but not in the 2SLS coefficients, and the former would be larger (in absolute value) than the latter.

Table 5 shows the first-stage regressions from which predicted aid values are generated for the 2SLS tests reported in table 3, for aid/GNP (cols. 1 and 2 of table 5), and aid's share of government spending (cols. 3 and 4 of table 5). Exogenous instruments for aid include various measures of recipient need and of donor interest. Initial GDP per capita, infant mortality, and illiteracy are measures of recipient need. Of these, only GDP per capita is a significant predictor of aid levels in table 5 (cols. 2 and 4).

Country size, measured as the log of population of the recipient nation, is one measure of donor interest. Smaller nations tend to receive more aid as a share of GDP than larger nations, presumably because of donors' desire to "show the flag" widely.<sup>79</sup> Population is a significant predictor of (lower) aid in column 2 (aid/GNP) but not in column 4 (aid/government spending).

Other measures of donor interest included as instruments are the Freedom House index of political freedoms and a set of colonial heritage dummies

TABLE 5  
FIRST-STAGE REGRESSIONS FOR 2SLS, ICRG SAMPLE

	Column 1	Column 2	Column 3	Column 4
Aid variable	Aid/GNP	Aid/GNP	Aid/Government	Aid/Government
Constant	20.764 (20.385)	139.890 (36.616)	43.082 (41.659)	213.307 (127.013)
Initial ICRG index value	.069 (1.154)	.131 (.419)	.494 (2.817)	2.811 (1.835)
Population change/initial population	-21.707 (25.431)	-17.302 (10.683)	7.742 (61.598)	-29.683 (44.176)
GDP population change/ initial GDP popula- tion change	3.970 (6.567)	.121 (3.676)	-2.984 (16.236)	-4.683 (12.932)
Political violence	2.250 (12.257)	-11.315* (4.886)	-14.775 (25.917)	-2.679 (5.603)
Initial (log) population		-4.282** (1.291)		-6.255 (5.226)
Initial (log) GDP per capita		-10.157** (2.472)		-21.130* (8.241)
Infant mortality rate		-.067 (.060)		.267 (.166)
Illiteracy rate		.221 (.125)		.494 (.403)
Political freedoms		1.907 (1.254)		-2.679 (5.603)
French colony		.389 (4.440)		27.135** (9.307)
British colony		10.670 (5.452)		28.077 (14.952)
Portuguese colony		16.313** (5.465)		22.418 (28.223)
Belgian colony		11.640* (5.074)		56.230** (19.775)
<i>N</i>		32		28
Mean, dependent variable		14.3		42.8
$R^2$	.07	.87	.03	.81
Standard error of estimate	13.1	6.0	32.3	18.2

NOTE.—Dependent variable is the relevant aid variable. Standard errors are in parentheses.

\* Indicates significance at .05 level for two-tailed tests.

\*\* Indicates significance at .01 level for two-tailed tests.

indicating whether recipient nations are ex-colonies of any one of four donor nations: Britain, France, Portugal, and Belgium.<sup>80</sup> Political freedoms is not a significant predictor of aid, controlling for other factors. The colony dummies all have positive coefficients. The British dummy is marginally significant in columns 2 and 4. The Belgian dummies are highly significant in both regressions. Portuguese colonies on average receive higher levels of aid/GNP (col. 2), but this obscures a large gap between Angola's 7.4% and Mozam-

bique's 34.5%. French colonies receive higher levels of aid as a share of government spending (col. 4).

These instruments collectively are extremely effective in explaining variations in aid. The first-stage regression of aid/GNP on these exogenous instruments and on the other regressors (the initial ICRG index, changes in population and per capita GDP, and political violence) produces an  $R^2$  of .87. By contrast, a regression of aid/GNP on only the other three regressors (see col. 1 of table 5) produces an  $R^2$  of only .07. The first-stage regression of aid/government spending on the exogenous instruments plus the other regressors is .81, while a regression on the other regressors alone produces an  $R^2$  of only .03 (see col. 4). The instruments are also valid in the sense that they pass standard tests of overidentification, indicating that they do not significantly predict changes in the quality of governance independently of their impact on aid.

#### *Pre- and Post-1990*

There are two major reasons to hypothesize that the negative impact of aid on the quality of governance might have weakened after 1990. First, starting at about that time donors began to emphasize the crucial importance of the quality of governance for development. Bilateral donors and international financial institutions are now heavily engaged in programs to reduce corruption, improve public expenditure management and tax administration systems, and support democratization in recipient countries. Second, the end of the cold war allows the United States and other donors to target aid more selectively, rather than using aid to strengthen corrupt but geopolitically useful autocracies.

Table 6 repeats the analysis of aid/GNP and the quality of governance in table 3 but divides the period into two. The dependent variables in columns 1 and 2, respectively, are the changes in the ICRG index from 1982–90 and 1990–97. Similarly, aid/GNP is averaged only over the relevant subperiod. The aid coefficient is negative in both regressions but is statistically significant only in the 1982–90 period, before the end of the cold war and donors' increased emphasis on governance. Although the aid coefficient is larger (in absolute value) in the 1982–90 period than in the 1990–97 period,  $F$ -tests show that the difference in coefficient magnitudes is not statistically significant. Therefore, the evidence is suggestive but not conclusive that aid was less damaging to governance in recipient nations in the 1990s than in the 1980s. To the extent that there is an effect, it is impossible to disentangle the impact of the cold war ending from donors' enhanced emphasis on governance.

#### **Conclusion and Implications**

Recently, a number of studies have emphasized the importance of "good governance" to economic growth and development in Africa. Others have examined the impact of aid on African development. Our study addresses the

TABLE 6  
AID/GNP AND THE QUALITY OF GOVERNANCE,  
PRE- AND POST-1990

	Column 1	Column 2
Period	1982–90	1990–97
Constant	4.089 (1.668)	7.994 (4.494)
Initial ICRG index value	–.430** (.098)	–.679** (.226)
Population change/initial population	4.266 (5.587)	–.531 (14.098)
GDP population change/initial GDP population change	5.720** (1.293)	1.303 (1.912)
Political violence	–1.519* (.593)	–2.398 (1.468)
Aid	–.054** (.014)	–.036 (.043)
<i>N</i>	31	30
Mean, dependent variable	+.54	+.70
<i>R</i> <sup>2</sup>	.66	.40
Standard error of estimate	1.39	2.03

NOTE.—Dependent variable is the ICRG quality-of-governance index. Standard errors are in parentheses. Countries in table 3 missing in this table are Namibia (eq. 1) and Liberia and Somalia (eq. 2).

\* Indicates significance at .05 level for two-tailed tests.

\*\* Indicates significance at .01 level for two-tailed tests.

connection between these two, in asking how dependence on large amounts of aid might affect governance in sub-Saharan Africa. Our major findings are three: (1) there is a robust statistical relationship between high aid levels in Africa and deteriorations in governance, particularly when we correct for the tendency of donors to give more aid to African countries with improving, rather than deteriorating, governance; (2) there is a similarly strong relationship between higher aid levels and a lower tax share of GDP; and (3) increases in GDP per capita tend to be associated with improvements in governance, while political violence is associated with declines in governance and in the tax share of GDP. Yet when we control for per capita GDP and violence, aid still has an independent, and negative, effect.

Some of the poorer countries in Africa have been the recipient of decades of substantial net transfers of aid. As we discussed in the introduction, these large amounts of aid could affect governance in several ways. They could be used to build capacity and institutions, leading to improvements in the quality of institutions and in accountability. They could underwrite training programs and support technical assistance that helps build learning by doing. On the other hand, large amounts of aid over long periods of time can weaken institutions and establish incentives for aid agencies and aid recipients alike that undermine the ability of each to change.

This seems to have been the case in sub-Saharan Africa, where high levels of aid are associated with declines in the quality of governance. Although our research design is not intended to establish empirically why this is so, other evidence points to two major effects of aid: institutional weakening and perverse incentives. The high transaction costs that accompany aid programs, as well as the fragmentation, poaching, and other direct effects of a large number of donors competing for the typical aid-dependent government's limited number of high-level, skilled officials, can weaken institutions that were not strong to begin with. Large amounts of aid can also foster perverse incentives, making it more difficult to solve collective action problems, creating long-standing soft budget constraints, and a tragedy of the commons for future budgets. Supplied as loans, aid compounds debt, creating incentives to give ever more aid, in particular to the riskier, more aid-dependent states who are often also the most highly indebted. This creates a clear moral hazard for creditor agencies.

As this suggests, aid dependence is clearly a problem of aid interdependence. Since both the international community and the recipient countries are locked into a system that is unable to produce development consistently or predictably, the solutions need to recognize that the current system of institutions and incentives must be changed on both sides. Two important steps would, we believe, contribute greatly to these changes. First, official aid needs to become much more selective and competitive, delivered with few if any strings to proven, developmental governments in recognition of the fact that funding is fungible and that an overabundance of uncoordinated donors can crush local ownership and boost transactions costs. Some moves have occurred in this direction. The government of the Netherlands announced not long ago that it would focus its aid selectively to reward performance, cutting the number of countries receiving aid from 80 to 20 and stepping up use of instruments such as direct budgetary support and common pool funding of sectors such as health.<sup>81</sup> The U.K. Department for International Development also recently committed itself to ending the practice of tying aid to the purchase of British goods and services. In March of 2002, the United States announced that it would fund a new aid program, the Millennium Challenge Account, which would target countries selectively, rewarding those that had compiled track records indicating better use of development funding. Yet much more could be done to reduce transactions costs and increase competition and accountability. Donors could increase the new practice of pooling aid funds in a particular sector, along the lines of the "sector investment programs" or "common basket funds" used by some donor groups.<sup>82</sup> Shifting toward a foundation model organized on a regional basis to fund successful proposals submitted by central and local government units or nongovernmental organizations would introduce more competition into the aid system and remove the "disbursement imperatives" that currently characterize aid programmed on a country level.<sup>83</sup> Assisting this might be new systems of

Internet-based information for developing countries' governments and non-governmental groups to access low-cost but refereed technical assistance when, and where, they themselves identify a need for it.<sup>84</sup>

Second, we suggest that large-scale aid programs be explicitly seen as a temporary (albeit medium-term) development tool. The idea of having an aid "exit strategy" is not a new one. The successful Marshall Plan, of course, was a temporary program with a built-in exit and incentives for self-help.<sup>85</sup> Possibly this advice influenced the U.S. aid strategy in Korea and Taiwan during the 1960s. Both countries were told that U.S. economic aid would be phased out during the 1960s. In Taiwan, when the economic aid program ended in 1965, payments on Taiwan's debt service were transferred into a foundation called the Sino-American Fund for Economic and Social Development that continued to fund projects.<sup>86</sup> Recent calls for well-planned aid "exit strategies" have drawn on the Taiwan experience.<sup>87</sup>

While assistance in the case of humanitarian disaster and other emergencies would continue to be a feature of the aid system, we think that donors should begin working with recipient governments to create long-term plans for graduating from aid. The first component of these plans should be a system of debt relief that recognizes that unsustainably high levels of debt, particularly in the HIPC countries, result from errors made on the donor side (loans given that were clearly unpayable, for example) in addition to those made by loan recipients. The extensive conditions required for poor countries to qualify for debt relief mirror the aid system itself, with high transaction costs and extensive use of foreign consultants to develop the required poverty reduction programs and plans.<sup>88</sup> Debt relief does not have to be so onerous. If debt can be written down to much lower levels, then donors could concentrate on the second step: developing a mutually agreed-on strategy for the termination of concessional funding over a 10–20-year period. The third step would involve targeted aid, helping countries boost their capacity to fill the savings and foreign exchange gaps that aid was originally intended to fill.<sup>89</sup> Tax reform, local capital markets, bond issues in international bond markets, export diversification, and diversified foreign investment all provide different kinds of finance; aid could target these for strengthening.

There is much encouraging evidence that countries with good track records of macroeconomic management (such as avoiding highly overvalued exchange rates and keeping inflation modest), as well as good governance, do better at development, whether measured as growth, literacy, or infant mortality. Aid is more likely to have its intended impact where governance and policy provide a solid foundation for development.<sup>90</sup> The task for the international community and aid-dependent countries alike is to respond to the challenge of weak states by providing incentives for good governance rather than the incentives for poor governance inherent in the present system.



## Appendix

### ICRG Quality of Governance Index

*Corruption in government (0–6).* Lower scores indicate that “high government officials are likely to demand special payments,” “illegal payments are generally expected throughout lower levels of government” in the form of “bribes connected with import and export licenses, exchange controls, tax assessment, police protection, or loans.”

*Quality of the bureaucracy (0–6).* High scores indicate “autonomy from political pressure,” “strength and expertise to govern without drastic changes in policy or interruptions in government services” when governments change, and “established mechanisms for recruiting and training.”

*Rule of law (0–6).* This variable “reflects the degree to which the citizens of a country are willing to accept the established institutions to make and implement laws and adjudicate disputes.” Higher scores indicate “sound political institutions, a strong court system, and provisions for an orderly succession of power.” Lower scores indicate “a tradition of depending on physical force or illegal means to settle claims.” On changes in government, new leaders “may be less likely to accept the obligations of the previous regime” in low-scoring countries.

## Notes

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1. World Bank, *Sub-Saharan Africa: From Crisis to Sustainable Growth: A Long-Term Perspective Study* (Washington, D.C.: World Bank, 1989), p. 60.

2. Throughout this article, “Africa” refers to sub-Saharan Africa only.

3. For some examples, see the case studies in Merilee S. Grindle, ed., *Getting Good Government: Capacity Building in the Public Sectors of Developing Countries* (Cambridge, Mass.: Harvard Institute for International Development, 1997).

4. We appreciate the suggestions of an anonymous reviewer, which we draw on in this section.

5. John Orme, “The Original Megapolicy: America’s Marshall Plan,” in *Great Policies: Strategic Innovations in Asia and the Pacific Basin*, ed. John D. Montgomery and Dennis A. Rondinelli (Westport, Conn.: Praeger, 1995), pp. 15–39, p. 23, citing Michael Hogan, *The Marshall Plan: America, Britain and the Reconstruction of Western Europe, 1947–1952* (Cambridge: Cambridge University Press, 1987), pp. 72–73.

6. Milton Friedman, “Foreign Economic Aid: Means and Objectives,” *Yale Review* 47, no. 4 (September 1957): 500–516, p. 507. Peter Bauer’s critique of foreign aid made similar points.

7. Cheryl Payer, *The Debt Trap: The International Monetary Fund and the Third World* (New York: Monthly Review Press, 1974), pp. 212–13.

8. David E. Bell, “The Quality of Aid,” *Foreign Affairs* 43 (1965): 601–7, p. 601. This emphasis on “partnership,” of course, foreshadows the current concern by the World Bank with the same topic.

9. Kathryn Morton, *Aid and Dependence: British Aid to Malawi* (London: Croom

Helm in association with the Overseas Development Institute, 1975); Rehman Sobhan, *The Crisis of External Dependence: The Political Economy of Foreign Aid to Bangladesh* (London: Zed, 1982).

10. Among numerous recent studies that have been sponsored by the international donor community see, in particular, Swedish International Development Agency (Sida), ed., *Aid Dependency: Causes, Symptoms and Remedies Project 2015* (Stockholm: Sida, 1996); Deborah Bräutigam, *Aid Dependence and Governance*, Expert Group on Development Issues Study 2000 (Stockholm: Almqvist & Wiksell International for the Swedish Ministry of Foreign Affairs, 2000); Malcolm McPherson and Clive Gray, "An Aid Exit Strategy for African Countries: A Debate," African Economic Policy Discussion Paper no. 49, PN-ACK-373 (U.S. Agency for International Development [USAID], Washington, D.C., July 2000), and Arthur Goldsmith, "Foreign Aid and Statehood in Africa," *International Organizations* 55, no. 1 (2001): 123–48, both of which were funded by USAID under its EAGER project. See also Carol Lancaster and Samuel Wangwe, *Managing a Smooth Transition from Aid Dependence in Africa* (Washington, D.C.: Overseas Development Council and African Economic Research Consortium, 2000), which was sponsored by Sida, USAID, the Department for International Development of the United Kingdom (DIFD), the Swiss Agency for Development and Cooperation, and the government of Japan. For studies produced by researchers at the World Bank, see Paul Collier, "Aid 'Dependency': A Critique," *Journal of African Economies* 8, no. 4 (December 1999): 528–45; Jacob Svensson, "Foreign Aid and Rent-Seeking," *Journal of International Economics* 51, no. 2 (2000): 437–61; and Stephen Knack, "Aid Dependence and the Quality of Governance: Cross-Country Empirical Tests," *Southern Economic Journal* 68, no. 2 (2001): 310–29.

11. Riddell, p. 24.

12. Sobhan, "Aid Dependence and Donor Policy: The Case of Tanzania with Lessons from Bangladesh's Experience," in Sida, ed., pp. 111–245, p. 122.

13. World Bank, "Partnership for Capacity Building in Africa: A Report of the Working Party on the Impact of Bank Policies, Instruments and Operational Practices on Capacity Building in Africa" (World Bank, Washington, D.C., 1996), p. 7.

14. World Bank, *World Development Indicators 2000* (Washington, D.C.: World Bank, 2000), CD-ROM version.

15. Gelese Mutahaba, Rweikiza Baguma, and Mohamed Halfani, *Vitalizing African Public Administration for Recovery and Development* (Hartford, Conn.: Kumarian Press in Cooperation with the United Nations, 1993), p. 82; World Bank, *Education in Sub-Saharan Africa: Policies for Adjustment, Revitalization, and Expansion* (Washington, D.C.: World Bank, 1988), p. 12. These numbers do not include universities established in South Africa and Zimbabwe, which remained white-ruled until 1980 and 1994, respectively.

16. Mutahaba, Baguma, and Halfani, p. 82.

17. Mick Moore, "Death without Taxes: Democracy, State Capacity, and Aid Dependence in the Fourth World," in *Towards a Democratic Developmental State*, ed. Gordon White and Mark Robinson (Oxford: Oxford University Press, 1998), pp. 84–121.

18. Arnold Rivken, "The Role of Institution-Building in Africa," in his *Nations by Design: Institution Building in Africa* (New York: Anchor Books, 1968), pp. 1–17, p. 17.

19. Judy Makanda, "Accounting and Auditing Standards in Sub-Saharan Africa" (report of the World Bank, Capacity Building and Implementation Division, Africa Technical Department, Washington, D.C., 1995), p. 27.

20. D. L. Lindauer, O. A. Meesook, and P. Suebsaeng, "Government Wage Policy in Africa: Some Findings and Policy Issues," *World Bank Research Observer* 3, no. 1 (1988): 1–25.

21. Ian Lienert, "Civil Service Reform in Africa: Mixed Results after 10 Years," *Finance and Development* 35, no. 2 (June 1998): 42–45, p. 43.
22. Paul Collier and J. Gunning, "War, Peace and Private Portfolios," *World Development* 23, no. 2 (1995): 233–41.
23. BBC World Service, *Network Africa* (February 12, 1999).
24. Clive Gray and Malcolm McPherson, "The Leadership Factor in African Policy Reform and Growth," *Economic Development and Cultural Change* 49, no. 4 (2001): 707–40.
25. Jerker Carlsson, Gloria Somolekae, and Nicolas van de Walle, eds., *Foreign Aid in Africa: Learning from Country Experiences* (Uppsala: Nordiska Afrikainstitute, 1997).
26. Shanta Devarajan, David R. Dollar, and Torgny Holmgren, eds., *Aid and Reform in Africa: Lessons from Ten Case Studies* (Washington, D.C.: World Bank, 2001), pp. 29, 85.
27. Ramesh Durbary, Norman Gemmell, and David Greenaway, "New Evidence on the Impact of Foreign Aid on Economic Growth," Research Paper no. 98/8 (University of Nottingham, Centre for Research in Economic Development and International Trade, Nottingham, 1998), p. 17.
28. Among many insightful reports on this subject, see Harry Sawyerr, USAID/AFR/SD, and USAID/Ghana, *Country-Led Aid Coordination in Ghana* (Paris: Association for the Development of Education in Africa, 1997); World Bank (n. 13 above); Elliot Berg, *Rethinking Technical Cooperation: Reforms for Capacity Building in Africa* (New York: UN Development Program, 1993).
29. Elliot R. Morss, "Institutional Destruction Resulting from Donor and Project Proliferation in Sub-Saharan African Countries," *World Development* 12, no. 4 (1984): 465–70.
30. Steven Lister and Michael Stevens, "Aid Coordination and Management" (World Bank, Washington, D.C., 1992, photocopied), p. 35.
31. Sawyerr, p. 7.
32. World Bank, *World Development Report 1997: The State in a Changing World* (New York: Oxford University Press for the World Bank, 1997), p. 84.
33. David Hirschmann, "Institutional Development in the Era of Economic Policy Reform: Concerns, Contradictions and Illustrations from Malawi," *Public Administration and Development* 13, no. 2 (1993): 113–28; Ole Therkildsen, "Efficiency, Accountability, and Implementation: Public Sector Reform in East and Southern Africa," Working Paper no. 3 (United Nations Institute for Social Development Democracy, Governance, and Human Rights Programme, Geneva, 2001), pp. 37–38; World Bank, *Can Africa Claim the 21st Century?* (Washington, D.C.: World Bank, 2000), p. 241.
34. Organization for Economic Cooperation and Development (OECD) and UN Development Program (UNDP), "Review of the International Aid System in Mali: Synthesis and Analysis" (provisional report prepared for the special meeting on the Mali Aid Review, Paris, March 2–3, 1998), pp. 37–50.
35. Lise Rakner, Nicolas van de Walle, and Dominic Mulaisho, "Zambia," in Devarajan, Dollar, and Holmgren, eds., pp. 533–623.
36. For excellent discussions of this problem, see the many articles by the late John M. Cohen, including John M. Cohen and John R. Wheeler, "Training and Retention in African Public Sectors: Capacity-Building Lessons from Kenya," in Grindle, ed., pp. 125–56; and John M. Cohen, "Foreign Advisors and Capacity Building: The Case of Kenya," *Public Administration and Development* 12, no. 5 (1992): 493–510.
37. World Bank, *Assessing Aid* (Washington, D.C., World Bank, 1998), pp. 88–89.
38. E. V. K. Jaycox, "Capacity Building: The Missing Link in African Devel-

opment" (address delivered at the African-American Institute Conference on African Capacity-Building: Effective and Enduring Partnerships, Reston, Va., 1993).

39. Devesh Kapur, John Lewis, and Richard Webb, *The World Bank: Its First Half Century*, 2 vols. (Washington, D.C.: Brookings Institution, 1997), 1:421.

40. Carlsson, Somolekae, and van de Walle (n. 25 above), p. 216.

41. OECD and UNDP, p. 11.

42. Berg (n. 28 above).

43. Barbara Geddes, *Politician's Dilemma: Building State Capacity in Latin America* (Berkeley: University of California Press, 1994).

44. See Bell (n. 8 above), p. 601.

45. The data are from World Bank, *World Development Indicators 2001* (Washington, D.C.: World Bank, 2001). Calculations are by the authors.

46. Countries with less than 10% of GNP in aid in 1995 were almost evenly divided between lower than expected and higher than expected tax effort (54% had lower tax effort, 46% higher). While the analysis is the authors', the IMF study was conducted by J. G. Stotsky and A. WoldeMariam in "Tax Effort in Sub-Saharan Africa," International Monetary Fund Working Paper WP/97/107 (IMF, Washington, D.C., September 1997).

47. World Bank, *Can Africa Claim the 21st Century?* (n. 33 above), p. 246.

48. Sanjay Pradhan, "Evaluating Public Spending: A Framework for Public Expenditure Reviews," World Bank Discussion Paper no. 323 (World Bank, Washington D.C., 1996), p. 110.

49. Alberto R. Alesina, Ricardo Hausmann, Rudolph Hommes, and Ernesto Stein, "Budget Institutions and Fiscal Performance in Latin America," Working Paper no. 5586 (National Bureau of Economic Research, Cambridge, Mass., 1996).

50. Bruce R. Bolnick, "Establishing Fiscal Discipline: The Cash Budget in Zambia," in Grindle, ed. (n. 3 above), pp. 297-331, and personal communication, Lise Rakner, March 2002.

51. Edward Campos and Sanjay Pradhan, "Budgetary Institutions and Expenditure Outcomes: Binding Governments to Fiscal Performance," World Bank Policy Research Working Paper no. 1646 (World Bank, Washington, D.C., 1996), p. 19.

52. See also Lister and Stevens (n. 30 above).

53. Peter Heller, "The Underfinancing of Recurrent Development Costs," *Finance and Development* 16 (March 1979): 38-41. See also Clive Gray and André Martens, "The Political Economy of the 'Recurrent Cost Problem' in the West African Sahel," *World Development* 11, no. 2 (1982): 101-17; and Lister and Stevens, p. 13.

54. Gray and Martens, p. 116.

55. A. Moon, "Aid, MTEFs, and Budget Processes" (unpublished manuscript, World Bank, Washington, D.C., November 1998); World Bank, "Interim Review of the FY98 Uganda and Tanzania PERs" (paper presented at the Regional Research Project on Public Expenditures Workshop, Budget Processes and Foreign Aid, November 2-3, 1998).

56. Alberto Alesina and Beatrice Weder, "Do Corrupt Governments Receive Less Foreign Aid?" Working Paper no. 7108 (National Bureau of Economic Research, Cambridge, Mass., 1999).

57. Knack (n. 10 above).

58. Goldsmith (n. 10 above). Goldsmith also examines the impact of aid on "economic freedom" as measured by Canada's Fraser Institute Index of Economic Freedom, but we would argue that this measure of economic liberalism is not a good proxy for governance, defined as bureaucratic quality, rule of law, and corruption.

59. These data are also the most complete for the subcontinent, compared with other governance measures, such as that developed for the Africa Competitiveness Report, which covers only 1 year.

60. Theda Skocpol, "Bringing the State Back In: Strategies of Analysis in Current

Research,” in *Bringing the State Back In*, ed. Peter B. Evans, Dietrich Rueschemeyer, and Theda Skocpol (New York: Cambridge University Press, 1985), pp. 3–43.

61. Stephen Knack and Philip Keefer, “Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures,” *Economics and Politics* 7, no. 3 (1995): 207–27; Dani Rodrik, *The New Global Economy and Developing Countries: Making Openness Work* (Washington, D.C.: Overseas Development Council, 1999).

62. The ICRG ratings are still published, but in late 1997 the bureaucratic quality variable was changed from a 0–6 scale to a 0–4 scale. To maintain comparability of the data over time, we do not go beyond 1997 in our analysis.

63. Peter Boone, “Politics and the Effectiveness of Foreign Aid,” *European Economic Review* 40 (1996): 289–329; Craig Burnside and David Dollar, “Aid, Policies, and Growth,” *American Economic Review* 90, no. 4 (2000): 847–68.

64. Aid per capita is a third possible measure of aid intensity. Country averages (1982–97) of aid per capita are not strongly correlated with either aid/GNP (.33) or aid’s share of government spending (.03) because several small, relatively well-off nations have high aid per capita but low aid as a share of GNP or government spending. Botswana, Gabon, Namibia, Gambia, and Guinea-Bissau all averaged about \$100 in aid per capita annually, but for the former three, aid/GNP were lower than 6%, and for the latter two, 37% and 54%, respectively. Where \$100 represents a week’s income for the average person, “aid dependence” is surely much less severe than where \$100 represents 6 months’ income. Adjusting aid per capita for average income would simply reproduce the aid/GNP measure, as aid/population divided by GNP/population equals aid/GNP.

65. Not all aid is channeled through government budgets, so aid can exceed government spending.

66. The countries with data on aid/GNP but missing data on aid/government spending are Angola, Mozambique, Niger, and Somalia.

67. Burnside and Dollar; Svensson (n. 10 above); Charles C. Chang, Eduardo Fernandez-Arias, and Luis Servan, “Measuring Aid Flows: A New Approach,” Policy Research Working Paper no. 2050 (World Bank, Washington, D.C., 1999).

68. Annual variation in the data is not used because effects on governance may show up only with substantial lags and because of the lack of good instruments for aid for which annual data are available.

69. Summary statistics for all variables are presented in table 2.

70. T. N. Srinivasan, “The Costs and Benefits of Being a Small, Remote, Island, Landlocked, or Mini-State Economy,” *World Bank Research Observer* 1, no. 2 (1986): 205–18. On the other hand, arguments that smaller nations can be governed more effectively date to Aristotle. See also Deborah Bräutigam and Michael Woolcock, “Micro-States in a Global Economy: The Role of Institutions in Managing Vulnerability and Opportunity,” in *Globalization, Marginalization and Development*, ed. S. Mansoorb Murshed (London: Routledge, 2002), pp. 185–202.

71. Nathan Rosenberg and L. E. Birdzell, Jr., *How the West Grew Rich: The Economic Transformation of the Industrial World* (New York: Basic, 1986), pp. 115–16.

72. Robert Bates, Karen Feree, James Habyarimana, Macartan Humphreys, and Smita Singh, *Annual War and Political Instability Survey* (Cambridge, Mass.: Harvard University, Africa Research Program, 2001), at <http://www.gov.harvard.edu/research/rbates/>.

73. Daniel Treisman, “The Causes of Corruption: A Cross-National Study,” *Journal of Public Economics* 76, no. 3 (2000): 399–457; Anand Swamy, Stephen Knack, Young Lee, and Omar Azfar, “Gender and Corruption,” *Journal of Development Economics* 64 (2001): 25–55; Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer,

and Robert Vishny, "The Quality of Government," *Journal of Law, Economics, and Organization* 5, no. 1 (1999): 222–79.

74. Jean-Paul Azam, Shantayanan Devarajan, and Stephen A. O'Connell, "Equilibrium Aid Dependence" (unpublished manuscript, World Bank, Washington, D.C., 2002).

75. There are 18 different observed values for ICRG index changes among the 32 countries in the sample.

76. Boone (n. 63 above); Tarhan Feyzioglu, Vinaya Swaroop, and Min Zhu, "A Panel Data Analysis of the Fungibility of Foreign Aid," *World Bank Economic Observer* 2, no. 1 (1998): 29–58. Those two studies differ from this one (and from each other) in research design, model specification, and sample of aid recipient nations. A theoretical analysis by Adam and O'Connell analyzes how aid's impact on tax effort is predicted to vary with the size of the government's constituency, the weight given to the welfare of members of other groups, the presence of an external threat, and other factors. Christopher Adam and Stephen A. O'Connell, "Aid, Taxation and Development in Sub-Saharan Africa," *Economics and Politics* 11, no. 3 (1993): 225–53.

77. Boone; Burnside and Dollar (n. 63 above).

78. Among the 79 IDA-eligible nations, those with lower per capita income receive more aid, but the quality of governance and economic policies are given greater weight. Of the 32 nations in our sample, 28 are IDA-eligible (all but Botswana, Gabon, Namibia, and South Africa). Four of these 28 nations are not active borrowers (Congo-Zaire, Liberia, Somalia, and Sudan).

79. Another explanation for smaller countries receiving proportionately more aid is suggested by Lundborg's finding that aid from the United States and USSR influenced (and was influenced by) votes in the UN General Assembly. Because each country, regardless of size, has one General Assembly vote, an efficient vote-buying strategy would target small countries. Per Lundborg, "Foreign Aid and International Support as a Gift Exchange," *Economics and Politics* 10, no. 2 (1998): 127–41.

80. Of the 32 countries, 15 were British colonies, 11 French, 3 Portuguese, and 1 Belgian. Liberia and Ethiopia are classified as never colonized.

81. Eveline Herfkens, "Aid Works! Let's Prove It!" *Journal of African Economies* 8, no. 4 (1999): 481–86.

82. Sector investment programs are discussed by H. K. Nordås, "Criteria for General Budget Support and General Sector Support," Research Report no. 6 for the Norwegian Ministry of Foreign Affairs (Christian Michelsen Institute, Bergen, Norway, 1998); and S. P. Jones, "Sector Investment Programs in Africa: Issues and Experiences," Technical Paper no. 374 (World Bank, Washington, D.C., 1997).

83. The foundation model was suggested by Goran Hydén, "Reforming Foreign Aid to African Development: A Proposal to Set Up Politically Autonomous Development Funds," *Development Dialogue* 2 (1995): 34–52.

84. For further discussion, see Bräutigam (n. 10 above), pp. 54–61.

85. Here we draw on the comments of an anonymous reviewer, which we appreciate.

86. See Neil Jacoby, *U.S. Aid to Taiwan: A Study of Foreign Assistance, Self-Help, and Development* (New York: Praeger, 1967). In "Foreign Economic Aid" (n. 6 above), Friedman suggested (in 1957) that economic aid be terminated and that countries be given instead a one-time grant in an unrestricted "lump sum" of two to three times the annual aid transfers. Possibly this advice influenced the design of "aid exit" strategies in Taiwan and Korea. It is worth noting that Friedman accompanied this suggestion with another: that the United States completely eliminate the trade barriers and dumping of agricultural commodities that were harming developing countries (p. 512).

87. See, e.g., McPherson and Gray (n. 10 above); Deborah Bräutigam and Kwesi Botchwey, "The Institutional Impact of Aid Dependence on Recipients" (Overseas

Development Council and African Economic Research Consortium, Washington, D.C., 1999, photocopied); and Lancaster and Wangwe (n. 10 above).

88. We appreciate the comments of an anonymous reviewer who reminded us of these high transaction costs.

89. See Hollis B. Chenery and Alan M. Strout, "Foreign Assistance and Economic Development," *American Economic Review* 56 (1966): 679–735.

90. Burnside and Dollar (n. 63 above). Hansen and Tarp argue, however, that the Burnside and Dollar result (aid is conducive to growth only where institutions and policies are favorable) is fragile to specification changes and that aid contributes to growth in favorable or unfavorable environments unless aid levels are very high. Henrik Hansen and Finn Tarp, "Aid Effectiveness Disputed," in *Foreign Aid and Development*, ed. Finn Tarp (New York: Routledge, 2000), pp. 103–28.