Foreign Aid: Grants versus Loans

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Why the proposed shift of aid from loans to grants should be accompanied by a strengthening of institutions in developing countries

In the photo above, food aid is being unloaded in drought-stricken southern Somalia.

TO MEET the Millennium Development Goals, including cutting global poverty in half by 2015, donor countries have been called upon to allocate 0.7 percent of their GNP for official development assistance. But this raises the question of what form the aid should take—loans or grants? Scholars have argued, at least since the early 1960s, that recipient countries view loans as different from grants because they carry the burden of future repayment. This induces policymakers to use funds wisely and to mobilize taxes or, at least, to maintain current levels of revenue collection. In contrast, grants are viewed as free resources and could therefore substitute for domestic revenues. The strength of these arguments depends on how strongly policymakers perceive loans, in practice, as being different from grants. If a large share of these loans is provided on highly concessional terms, and loans are frequently forgiven, policymakers may come to view them, over time, as roughly equivalent to grants.

Some recent initiatives have called for a shifting of foreign aid toward grants while increasing overall assistance to developing countries. These initiatives are driven, in part, by the belief that excessive lending has led to massive debt accumulation in many developing countries and has not helped them reach their development objectives. From this perspective, aid should be motivated primarily by humanitarian objectives and thus take the form of grants. It is thought that such an approach would both help recipient countries develop their economies and improve their prospects for achieving debt sustainability.

In response to these initiatives, some donor countries and researchers have expressed concern that a significant shift to grants would make it difficult for the International Development Association, the World Bank's concessional lending arm, to maintain lending at the existing level. They also fear that such a shift could dampen public support in donor countries for transfers to developing countries.

One question is often overlooked in this debate. Is the proposed shift of foreign aid from loans to grants likely to have fiscal implications for recipient countries? If higher grants lead to lower domestic revenues, this policy shift may lead to greater aid dependency and make budget planning more difficult. The existing literature suggests various ways in which this scenario could come about.

First, aid is much more volatile and unpredictable than tax revenues, and volatility is a greater problem in countries that are aid-dependent. Grant aid has also been empirically shown to be more volatile than aid provided through loans. Second, countries could come to rely on aid for their poverty-reducing spending, which would have to be cut if aid inflows declined or ceased. Third, governments that become more dependent on aid may have less incentive to adopt good policies and maintain efficient institutions. Fourth, in many countries, tax revenues are low because of widespread tax exemptions for powerful interest groups and weak tax compliance; increased inflows of aid could thus divert attention from addressing these weaknesses in governance. Fifth, there is some evidence that in low-income countries, fiscal adjustments based on a strengthening of the revenue effort are more sustainable. Thus, if countries receive larger grants, they might be less resolute in their efforts at fiscal consolidation.

Unfortunately, the research on the relative effect of grants and loans on domestic revenues has been modest to date, with most studies lumping the two types of aid together. Some studies have produced preliminary evidence that grants and loans affect revenues differently. However, a more comprehensive study—using data with wider coverage and a fuller specification for revenue effort while accounting for the quality of domestic institutions—is lacking. Such a study could help shed light on the fiscal implications of aid flows.

To fill this void in the literature, we studied the experiences of 107 countries that received foreign aid during 1970–2000 to examine the relative effect of grants and loans on the domestic revenue effort. We also examined the effect of the quality of institutions on countries' efforts to raise revenues.

How revenue fits in

The revenue performance of developing countries in the past decade has been disappointing. Although country experiences have varied, tax revenue in the poorest developing countries and regions has, in most cases, been stagnant or has declined (see table). For example, the ratio of tax revenues to GDP has fallen in both sub-Saharan Africa and in Asia and the Pacific. Some of this could reflect the growing use of various tax breaks and exemptions, which may be prone to corruption. At the same time, aid flows remain sizable in many regions in relation to domestic revenues.

What happens when a country's financial aid is increased, and is the effect different if the aid takes the form of grants or of loans? In response to an increase in aid, a government has several choices. It can reduce revenues, increase expenditures, reduce its domestic borrowing to meet the budget constraint, or choose a combination of these three options. Thus, viewed in terms of the government's budget constraint over a given period, when aid flows increase, revenues can decrease, increase, or remain the same.

Abstracting from intertemporal considerations, one can consider three possible scenarios for the government budget. In the first scenario, the government passes the benefit of higher aid inflows to the private sector by reducing revenues, which can potentially improve the business environment. In the extreme, it could reduce revenues by the full amount of aid while holding aggregate public expenditures and borrowing constant. This assumes that the aid comes in the form of budget support. The result is similar when higher aid inflows promote rent-seeking behavior by domestic vested interests that clamor for tax exemptions or seek to avoid paying taxes. In the extreme, this behavior can cause revenues to decline by the full amount of aid inflows.

In a second scenario, revenue may either increase or decrease, depending on the form the aid takes and the amount by which the government increases expenditures in response. If aid increases expenditures by less than the increase in foreign inflows (that is, aid is "fungible," with recipients reallocating resources that would have been spent for purposes now financed by foreign aid) and holds domestic borrowing unchanged, revenues will decline. If the government increases expenditures by more than the increase in aid, revenues will need to increase to keep the borrowing requirement unchanged. This can happen if aid is provided primarily in the form of project assistance that requires matching government spending and if aid is not fungible. In

Disappointing performance

Revenues in developing countries have stagnated since the early 1990s.

	Total revenues	Tax revenues	Other revenues
		(percent of GDP)	
Early 2000s[1]			
Americas	19.7	16.0	3.6
Sub-Saharan Africa	19.7	15.9	3.8
Central Europe and BRO[2]	26.7	23.4	3.2
North Africa and Middle East	26.2	17.1	9.1
Asia and Pacific	16.6	13.2	3.4
Small islands[3]	32.0	24.5	7.6
Early 1990s[1]			
Americas	18.3	14.9	3.4
Sub-Saharan Africa	19.3	16.3	2.9
Central Europe and BRO[2]	30.9	27.3	3.6
North Africa and Middle East	23.3	15.1	8.3
Asia and Pacific	17.6	13.6	4.0
Small islands[3]	33.4	25.5	7.9

Source: Gupta, Clements, and Inchauste (forthcoming).
Note: Regional breakdown averages are for developing countries only.
[1]Data used for early 1990s and early 2000s are averages for 1990–91 and 2000–01, respectively, for most countries. For countries for which these averages could not be calculated, some flexibility in the year taken to represent the early 1990s and early 2000s was used to avoid a significant reduction in the sample size.
[2]The Baltic countries, Russia, and other countries of the former Soviet Union.
[3]Populations of less than 1 million.

this case, the need to generate counterpart funds would require a higher revenue effort.

In a third scenario, aid leads to a decrease in domestic borrowing, and the government decides not to spend foreign aid. This can happen when the government builds up deposits with the banking system to release resources for the private sector.

Aid composition matters

We distinguished between the effects of loans and grants on revenues in our basic model, holding constant other variables that have a bearing on a country's ability to raise taxes (including per capita income, shares of agriculture and industry in the country's GDP, and a ratio of a sum of imports and exports to its GDP). Our control variables are ones commonly used in cross-country studies investigating factors that affect tax revenues. Following recent research, we looked beyond the traditional determinants of tax revenue—that is, tax bases—to get a better understanding of variations in taxation across countries.

Empirical testing of the relationship between revenues and foreign aid is fraught with difficulties. Foreign aid may respond to shortfalls in domestic revenue mobilization, suggesting that the causation may run from revenues to foreign aid, rather than vice versa. We addressed this issue in the empirical results below by checking how the results differ when statistical techniques are used that correct for any simultaneous causality (that is, endogeneity) between aid and revenues.

The empirical results suggest that an increase in overall aid (net loans plus grants) causes a country's domestic revenues to decline, although the separate effects of its two components are different. An increase in loans causes government revenues to increase, whereas an increase in grants causes revenues to decline. Thus, if the loan amount were increased from an average of 1.5 percent of GDP to, for example, twice that level, revenue would increase by 0.35 percentage points of GDP. If grants were doubled from an average of 4 percent of GDP, revenue would fall by about 1.1 percent of GDP. This implies that for each additional dollar in aid in the form of grants, 28 percent is offset by lower domestic revenues. The doubling of grants from the sample average would also increase a country's dependence on aid because the ratio of grants to domestic revenues would rise from 18 percent to 39 percent.

Our results were broadly similar when we used lagged values of the loans and grants to control for endogeneity between aid and revenues and when we used an instrumental variable technique to control more formally for any two-way causality. Our results were also similar when we used robust regression, including when we used lagged aid as an explanatory variable to address endogeneity. We also went beyond what previous studies have done and controlled, using several econometric techniques, for the tendency of domestic revenue mobilization to persist over time. The results of those regressions were weaker than in our baseline regression, but they still showed the same picture: loans are associated with higher domestic revenue mobilization while grants are associated with weaker tax effort. Based on these results, a doubling of the current level of loans would increase revenues by 0.2 percentage points of GDP while a doubling of grants would curtail revenues by the modest amount of 0.4 percentage points of GDP (see Chart 1). This implies that for each additional dollar in aid in the form of grants, 10 percent is offset by lower domestic revenues.

When countries have weak institutions

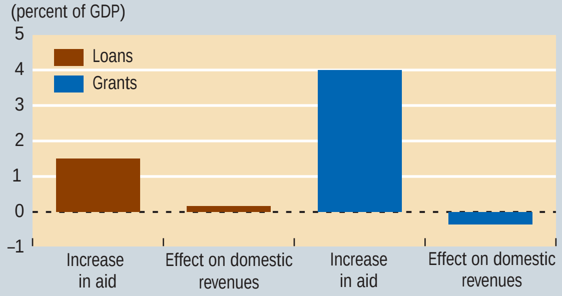
Could weak institutions, as manifested when corruption is pervasive, alter these results? To test this hypothesis, we included a variable for corruption in our model, ranking the countries in our sample according to their average corruption index, as measured by the *International Country Risk Guide*. Then, we studied the effects of grants and loans on revenues in countries that fell in the bottom half and the bottom quartile of our sample, based on the corruption index. We found that weak institutions significantly hampered domestic revenue mobilization. Our results were roughly similar when we controlled for any two-way causality that might exist between aid and revenues.

To allow for the possibility that the relationship between foreign aid and revenues varies across countries based on the quality of their institutions, we estimated a separate regression equation using a subsample of relatively corrupt countries (those in the bottom half of the corruption index rankings). The results indicate that grants lead to a larger decline in revenues in countries with weak institutions, in comparison with an increase in revenues when aid took the form of loans. We thus estimated that a doubling of grants as a share of GDP (from the average level for the sample as a whole) would result in a decline of 1.3 percentage points of GDP in domestic revenues in the relatively corrupt countries and a decline of as much as 3.8 percentage points of GDP in the most corrupt countries (those in the bottom quartile). This means that additional grants, whether from an overall increase in foreign aid or from a conversion of loans into grants, may be com-

Chart 1

Aid and revenue effort

When countries receive more aid in the form of grants, their domestic revenues decline.

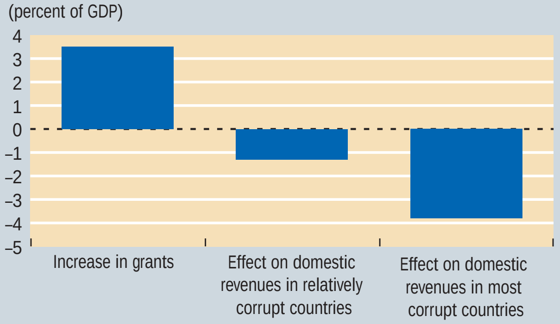


Sources: IMF, Government Finance Statistics database; OECD, International Development Statistics database; and authors' estimates.
Note: Simulations based on a doubling of aid flows.

Chart 2

Aid, corruption, and revenue effort

The more corrupt a country, the more its revenues decline when it receives grant aid.



Sources: IMF, Government Finance Statistics database; OECD, International Development Statistics database; and authors' estimates.

Note: Simulations based on a doubling of aid flows.

pletely offset by reduced domestic revenues in countries where institutions are weakest (see Chart 2).

Policy implications

We tested the relationship between aid and its components, on the one hand, and domestic revenue mobilization, on the other, for more than 100 countries over 30 years. Our results yield some noteworthy policy implications. First, if donors provide more grants to developing countries and if, as has been proposed, concessional loans are converted into grants, the effect on domestic revenue mobilization is modest for the sample as a whole. This suggests that a switch to grant aid will not—as some scholars fear—impinge on domestic resource mobilization. Second, the impact of aid flows on domestic revenues varies across countries, depending on the quality of institutions. In the countries where institutions are weakest, our results suggest that any increase in grant aid would be canceled out by a reduction in revenues. Thus, grants to these countries could not be expected to increase the aggregate amount of resources available to finance government expenditure.

Our results do not imply that aid to these countries should be limited or that loans should be favored over grants. Rather, they suggest that the provision of grants should be accompanied by policies to strengthen domestic institutions. For instance, efforts to curb tax exemptions and strengthen tax compliance would prevent better-off population groups from capturing the benefits of higher aid flows. Traditionally, donors have imposed conditions on how their resources can be spent without taking into account how aid flows affect a country's revenues. For example, debt relief under the enhanced Heavily Indebted Poor Countries Initiative is meant for spending on programs that reduce poverty. A similar requirement could be considered for the revenue side, particularly if the share of grants in aid flows is increased. Certain thresholds for domestic revenues could be established and monitored to ensure that aid recipients do not scale back their efforts to either generate resources for poverty reduction or reduce their dependence on aid.

At the same time, whether the decline in domestic revenues prompted by higher aid facilitates or retards a country's development will depend on its circumstances. In some countries, the dampening effect of aid on revenues could be part of a strategy to return resources to the private sector to accelerate economic growth. In these cases, it would be important for the government to reduce the tax burden by implementing measures that improve the efficiency of the tax system (for example, through a reduction in tax rates), rather than by decreasing its efforts to ensure tax compliance.

Some words of caution about our findings are in order. We have attempted to address complicated issues of causality and persistence. Future empirical work could explore alternative strategies, such as causality tests, to address these issues. Another area worth exploring is the dynamic nature of the relationship between aid and domestic revenues, including through the use of dynamic panel data models. It would also be useful to disaggregate aid flows into monetized and nonmonetized components, with a view to ascertaining the validity and strength of our results. In this connection, it is possible that the effect of aid in kind (that is, in forms other than cash) may be different from the effect of cash aid. ■

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Suggestions for further reading:

Brautigam, Deborah, and Stephen Knack, 2004, "Foreign Aid, Institutions, and Governance in Sub-Saharan Africa," Economic Development and Cultural Change, *Vol. 52 (January), pp. 255–85.*

Ghura, Dhaneshwar, 2002, "Tax Revenue in Sub-Saharan Africa: Effects of Economic Policies and Corruption," in Governance, Corruption, and Economic Performance, *edited by George Abed and Sanjeev Gupta (Washington: International Monetary Fund).*

Gupta, Sanjeev, Benedict Clements, Emanuele Baldacci, and Carlos Mulas-Granados, 2004, "The Persistence of Fiscal Adjustments in Developing Countries," Applied Economics Letters, *Vol. 11 (March), pp. 209–12.*

Keen, Michael, and Alejandro Simone, forthcoming, "Tax Policy in Developing Countries: Some Lessons from the 1990s, and Some Challenges Ahead," in Helping Countries Develop: The Role of Fiscal Policy, *edited by Sanjeev Gupta, Benedict Clements, and Gabriela Inchauste (Washington: International Monetary Fund).*

Khan, Haider, and Eiichi Hoshino, 1992, "Impact of Foreign Aid on the Fiscal Behavior of LDC Governments," World Development, *Vol. 20 (October), pp. 1481–88.*

Odedokun, Matthew, 2003, "Economics and Politics of Official Loans versus Grants," WIDER Discussion Paper 2003/04 (Helsinki: United Nations University, World Institute for Development Economics Research).