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Foreign aid and tax revenue in Uganda

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ABSTRACT

This paper analyzes the tax revenue–aid relationship in Uganda using a framework in which fiscal targets and actual outturns differ. The results suggest that grants have a negative association with tax revenue but are offset by the positive association of loans to result in some modest increases in tax revenue in the long run. The coefficient on the per capita income variable suggests that the tax system is inelastic. The error correction model results capture, in a dynamic setting, the offsetting effects of per capita income on the one hand and aid on the other to result in stagnant tax revenue GDP ratio that has been observed in the recent past. Policies that reduce mutation of taxpayers and noncompliance will reduce the country's reliance on aid and its unwanted effects.

1. Introduction

The shortfall between budgetary requirements and domestic tax revenue collection in the context of limited domestic financing options has led Uganda's economy to rely quite substantially in foreign aid. Uganda has been operating a fairly large and apparently unsustainable fiscal deficit over the last two decades, with deficits as a percentage of GDP peaking at about 14% in 2001/2002 before easing to about 6.5% in 2011/2012. The country's good record at macroeconomic reforms, however, attracted considerable donor resources to fund these deficits. Whereas increased donor aid inflows have been welcomed and even encouraged in some circles to help increase the pace at which some social targets can be attained, others have strongly argued that they complicate short run macroeconomic management and may generally not be sustainable in the long run (Brownbridge and Mutebile, 2007). This view contends that donor inflows can have many adverse consequences for the economy including putting pressure on the domestic price level (inflation) and domestic currency appreciation and debt sustainability. These in turn can hurt export competitiveness and stifle the role of the private sector in economic activity.

These conceptual links between foreign aid and macroeconomic outcomes such as inflation, export competiveness and debt sustainability have been the subject of considerable empirical attention in Uganda (see Brownbridge and Mutebile, 2007; Hisali, 2012a; Hisali and Guloba, 2011). Whereas a number of the standard macroeconomic effects of aid have been studied in Uganda, evidence on the relationship between aid and taxation is largely not available. But, at a more general level the nature of the relationship is inconclusive since increased aid inflows may enhance or curtail the tax revenue effort of the recipient country. Tax policy reforms associated with donor conditionality can affect either the tax rates or the tax base or both. Intuitively, a huge debt burden arising from increased aid may 'force' recipient countries to find avenues of increasing total tax revenue in order to enhance their ability to repay the loans. Increased aid inflows may also enlarge the budget and may require an increase in tax revenue for sustainability. In any case, total tax revenues would increase. An opposing set of arguments contends that increasing donor inflows can actually result in a slowdown in total tax revenue growth. This is partly because increased aid may reduce the incentive to implement certain policies and other administrative actions that expand total tax revenue. In addition, certain policies associated with aid conditionality (such as international trade liberalization) can reduce the tax base and hence total tax revenue.

This study sought to provide evidence on the relationship between aid inflows and tax revenue in Uganda. Examining Uganda's experience is particularly interesting because the period over which it received much of the aid initially coincided with an expansion in total tax revenue but which has now stagnated at levels below the sub-Saharan Africa average.[1]

The approach used in this paper explicitly recognizes the limited applicability of the widely used fiscal response models in situations where major disconnects exist between actual fiscal outturns and targets. The paper also endeavors to provide insights into the direct effects of aid on domestic tax institutions and structures, as well as indirect effects such as those mediated through donor conditionality.

After the introduction, the rest of the paper is organized as follows. Section two presents an overview of the literature. Section three builds on the standard pathways to provide descriptive insights into the

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[1] Uganda's average tax revenue GDP ratio of about 12.5% for the past five years is below the current sub-Saharan Africa average of about 25%.

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nature of the relationship between aid inflows and tax revenue performance in Uganda. The econometric methodology and results of the study are presented in section four followed by a summary and the policy implication in section five.

2. Literature review

2.1. Theoretical literature

The static model of taxation conceptualizes an optimizing policy maker working within a given budget constraint to balance the efficiency costs of taxation and benefits associated with public spending (Mirrlees, 1971, 1976, 1986). Foreign aid receipts can thus enable the recipient country to reduce costs of taxation without compromising the level of public service delivery. Extensions to this basic model seek to incorporate specific mechanisms through which aid receipts can affect fiscal policy formulation and outcomes, and include the analysis of aid fungibility, fiscal response and effects of foreign aid on domestic tax structures.

Aid is fungible when the increase in expenditure is less than the increase in aid (McGuire, 1978). Aid that is fungible in this sense has the effect of delaying the development of domestic tax structures and governance institutions. Fiscal response theories maintain the tax-expenditure tradeoff but allow for variable fiscal targets — either exogenously or endogenously (Heller, 1975; McGillivray, 2009). An important limitation of the exogenous models of fiscal response is their failure to provide clear mechanisms that link aid receipts and tax policy formulation. Endogenous fiscal targets vary over time making it possible for them to be conditioned on country characteristics such as aid receipts. The implications of aid receipts for domestic tax revenue in these models are ambiguous and depend partly on the nature of aid (for example whether grants or loans) as well as incentives of policy makers.

Foreign aid inflows and domestic tax policy can also be linked through the effect of the former on domestic tax structures and inflows (Knack, 2008). Technical assistance targeting legal, administrative and policy reforms can be expected to result in increased domestic tax revenue collection (Carter, 2010) and an improvement in the quality of domestic governance and political institutions (Moss et al., 2008; Ross, 2004). Foreign aid can also impact domestic tax revenue through short term changes to certain aspects of the tax base such as imports and salaries (Carter, 2010). There are also secondary (but ambiguous) effects of foreign aid on tax revenue that work through aspects of donor conditionality such as privatization and trade policy reform. The effects of privatization depend on the pre-privatization condition of the affected enterprises. Loss making parastatals that become profit making after privatization undoubtedly contribute to increased tax revenues. There is, however, a risk of losing revenue if profitable public enterprises are privatized. There are also sections of theoretical work that builds on utility functions[2] which are maximized with respect to the government budget constraint. This results in specifications which depend on GDP and some other conventional determinants of tax revenue (Pack and Pack, 1990, 1993; Stotsky and WoldeMariam, 1997).

2.2. Empirical literature

Most of the existing empirical work on the relationship between foreign aid inflows and domestic tax revenue is grounded in the fiscal response framework. Studies based on this approach estimate structural and reduced form equations from the policy maker's utility maximization and constraints on revenue (including borrowing) and expenditure. Public expenditures and revenues in this setting are linked through budget constraint. The coefficients of the structural equations are usually obtained using linear and nonlinear solution approaches to simultaneous equations (Franco-Rodriguez, 2000; Gang and Khan, 1991; McGillivray and Outarra, 2005). The reduced form specifications capture the indirect effects of aid on other variables in the system and are simulated from the structural equations (Gang and Khan, 1991). The findings in much of the literature suggest that aid inflows reduce tax revenue (Franco-Rodriguez, 2000; McGillivray and Outarra, 2005; Otim, 1996). This is usually interpreted to capture the reduced incentives by aid recipient governments to rapidly increase revenue from domestic sources in the face of what is, in some respects, free money. Some studies (Gupta et al., 2004; Remmer, 2004) go further step and disaggregate aid into loans and grants.

Moss et al. (2008) summarize the revenue response to aid literature and suggest that there is broad consensus that aid reduces the incentive to levy taxes and slows the growth of institutions.

In spite of the wide use of fiscal response models in empirical work, their ability to link foreign aid inflows and domestic fiscal outcomes can be severely limited. In particular, utility will not be maximized if theoretically optimal values of target variables are considerably different than what can be obtained from empirical estimations. This will be the case if targets used in planning documents are disconnected from actual outturns (White, 1994). Failure to meet expenditure targets through discretionary reallocation of budgeted resources and supplementary budgets has been a common feature of Uganda's fiscal policy in recent years. This precludes the use of fiscal response models in analyzing the association between fiscal policy and foreign aid in Uganda. In addition, both fiscal response and aid fungibility models fail to capture the direct effects of aid on domestic tax institutions and structures, as well as indirect effects that are mediated through certain aspects of donor conditionality.

Recent approaches explicitly recognize that aid can affect both revenue flows and tax structures, and focus on the latter. Main contributions to the literature on the effect of aid on domestic tax and governance institutions include that of Moore (2007), Knack (2008), and Besley and Persson (2009a). Besley and Persson (2009b) predict that investment in fiscal capacity reduces as the share of national income generated by natural resources increases. Aid inflows are predicted to have the same impact (Carter, 2010). Knack (2008) shows that increased aid inflows slow down the development of good quality of institutions for tax policy and administration.

There have also been attempts to study the indirect effect of certain aspects of donor conditionality on tax revenue. Gambaro et. al. (2007) report that whereas aid is associated with an increase in revenue from taxes on trade, it decreases revenue from income taxes.

Data limitations preclude a quantitative analysis of the link between aid inflows and institutions in Uganda. This study, however, attempts to link in a descriptive manner the relationship between aid inflows and institutions for tax policy and administration. The limited applicability of the fiscal response approach in Uganda's situation dictates that the standard single equation tax revenue specification is initially employed.[3] Feedback effects (if any) among the variables in the tax revenue specification are then explored using the vector autoregression framework and the Granger non-causality tests.

3. Foreign aid inflows and fiscal operations in Uganda

Uganda's fiscal operations have over the last two and a half decades been considerably influenced by donor resource inflows. Donor financial support increased substantially during the late 1980s — initially intended to stabilize and revamp the productive capacity of the economy[4] following mismanagement and civil unrest in the 1970s and early

[2] With public goods as one of the arguments.

[3] See Section 4.

[4] Aid was subsequently extended to social service provision as well as public administration reform.