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# Aid Absorption and Spending in Africa: A Panel Cointegration Approach

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## Abstract

This article focuses on the macroeconomic management of large inflows of foreign aid. It investigates the extent to which African countries have coordinated fiscal and macroeconomic responses to aid surges. In practice, we construct a panel dataset to assess the level of aid 'absorption' and 'spending'. This article departs from the recent empirical literature by utilising better measures for aid inflows and by employing cointegration analysis. The empirical short-run results indicate that, on average, Africa's low-income countries have absorbed two-thirds of (grant) aid receipts. This suggests that most of the foreign exchange provided by the aid inflows has been used to finance imports. The other third has been used to build up international reserves, perhaps to protect economies from future external shocks. In the long run, absorption increases but remains below its maximum. Moreover, we also show that aid resources have been fully spent, especially in support of public investment. There is only weak

evidence that a share of aid flows have been ‘saved’. Overall, these findings suggest that the macroeconomic management of aid inflows in Africa has been significantly better than often portrayed in comparable exercises. The implication is that African countries will be able to efficiently manage a gradual scaling up in aid resources.


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## Notes

1 This approach may also have its limitations, as recipients may under-report the total amount of aid. Nonetheless, we still believe that this data is superior to the data reported by donors.

2 These were embedded in the 2002 Monterrey Consensus – an outcome of the United Nations International Conference on Financing for Development – and the 2005 Gleneagles G8 summit.

3 For a useful review of this literature see McGillivray and Morrissey (2001).

4 It is assumed that neither public spending is increased nor revenues lowered (through tax cuts), which means that aggregate demand remains unchanged. However, a ‘balanced budget’ approach (that is, a combination of higher/lower spending and taxes that leaves the non-aid fiscal deficit unchanged) is compatible with this result and can have a significant impact on aggregate demand via the fiscal multiplier.

5 The same results can be found in IMF (2005).

6 McKinley (2005) suggests that countries may not fully spend aid inflows due to a ‘fear of inflation’, while a ‘fear of appreciation’ hampers full absorption by the central bank.

7 In practice, we allow ‘aid loans’ to remain lumped with foreign non-concessional loans.

8 Not surprisingly, the full sample shows lower absolute averages and higher standard deviations for the aid variables.

9 The robust versions of the Breitung and Hadri tests are implemented by the new STATA command ‘xtunitroot.’ See also Breitung (2000) and Hadri (2000).

10 The LLC and IPS tests require N to be relatively smaller than T, which is not the case here.

11 For each time period, the mean of the series (across panels) is calculated and then subtracted from the observations.

12 The PMG methodology, for example, requires that foreign aid is exogenous. This may not constitute a major concern since our aid variable only includes aid grants. Aid loans (such as IMF lending) tend to be more responsive to domestic conditions (for example, balance of payments crisis and fiscal imbalances).

13 There might be concerns of reverse causality (for example, higher fiscal deficits causing higher inflation), since only the first two methodologies provide corrections for endogeneity. However, an increase in the non-aid fiscal deficit does not necessarily translate into an increase in money supply. It can be covered by the additional aid inflow, which appears to be the case. Moreover, the coefficients are almost identical to those from SYS-GMM.

14 The two long-run coefficients of the explanatory variables are now allowed to vary, that is, (25–1)*2 = 48.

15 Note that an increase in DRY means a fall in international reserves.

16 We have also estimated OLS-FE and DIF-GMM for the lagged dependent variable model, and the results indicate that these estimators tend to underestimate both short- and long-run impacts in relation to SYS-GMM.

17 Buffie et al. (2004) suggest that a ‘managed float’ is the most attractive approach to manage shocks to aid inflows, therefore arguing that African central banks have been correct to intervene in the foreign exchange market.

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