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Published on: 28 Apr 2016

Countries: International

Research themes: Inclusive Growth, Political Economy

The effect of aid on growth: Evidence from a quasi-experiment

Does aid drive real (per capita) GDP growth in recipient countries? Today's blog uses the International Development Association's threshold criterion for aid eligibility to estimate the effect of aid on growth and finds physical infrastructure investments are a key driver of growth impacts from aid.

Identifying the causal effect of development aid on growth poses a serious challenge. It is not sufficient simply to observe how economic growth responds to changes in aid, as development agencies may vary their aid provision in response to changes in nations' underlying economic situations. Consequently, it is difficult to disentangle the effect of aid from other causes of growth. The key to identifying the causal effect is thus to find changes in aid provision that are not correlated with other determinants of economic growth.

Crossing the IDA's GNI threshold reduces aid, but what happens to growth?

In a new paper, we exploit a rule of the International Development Association (IDA), a branch of the World Bank Group, which provides most of its aid to nations under a threshold level of per capita gross national income (GNI). Crossing this threshold significantly reduces the amount of aid a nation receives, as a number of other aid agencies use the IDA threshold as a criterion in their own award decisions.

Donor funded construction of water supply facilities in the Somali region of Ethiopia

The threshold per capita GNI was set in 1987 at $580 in response to IDA's need to ration limited funding. Since then, the threshold has only been adjusted for inflation, reaching a level of $1,175 in 2010. As the threshold itself was set essentially arbitrarily, its crossing is not likely to be accompanied by other structural economic changes. We use the changes in aid resulting from crossing the threshold to estimate the causal impact of aid on economic growth within a sample of 35 countries that climbed above the threshold between 1987 and 2010.

We found that a one percentage point decrease in the ratio of aid to GNI reduces annual real per capita growth in gross domestic product (GDP) by approximately 0.35 percentage points. This figure is larger than those found in many other studies in the literature, potentially because conventional methods are likely to underestimate the true effect if donors generally dispense more aid to economically distressed countries. The sizable effect we find may also be attributable in part to the fact that our sample consists of low-income countries that successfully crossed the IDA threshold at some point between 1987 and 2010. Aid may have been more effective in these countries–e.g. due to better economic policies and lower corruption — than in countries remaining below the threshold.

> “ the impact of aid largely comes through physical investment. ”

We further estimate that a one percentage point decrease in the ratio of aid to GNI lowers the recipient nation's investment to GDP ratio by 0.54 percentage points, although this estimate is less precise. Bringing the estimates to a simple growth model and taking the capital stock to GDP ratio to be approximately two, we show that the impact of aid largely comes through physical investment.

Needless to say, identification of causal effects is a daunting task—especially at the macroeconomic level—so all causal estimates of country level parameters should be interpreted cautiously. Still, at the micro level, researchers need to evaluate on a case by case basis which aid projects work better, if at all. As in most of the literature relying on panel data covering a short period of time, we estimate the short-run effect of aid on growth. In the long run, aid could affect growth through several other channels, but its identification requires exogenous changes in aid over a very long period of time. Our results cannot be applied to a longer time horizon.

Implications for policy

In addition to providing a more credibly estimated effect of aid, the findings in the paper have important implications for aid policy. The results suggest that aid is still important for nations around IDA's threshold level. Particularly, as the IDA threshold serves as a “signal” to other donors and there is a pattern of “donor herding” in response to a threshold crossing, it may be desirable either to raise the threshold or to make the reductions in aid after crossing the threshold more gradual.

Reference:

Galiani, Sebastian, Stephen Knack, Collin Xu and Ben Zou (2016). "The effect of aid on growth: Evidence from a quasi-experiment." NBER Working Paper 22164.