

# Fungibility and the “Flypaper Effect” of Aid

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**Some donor aid for a road project was diverted to recipients’ own priorities—but it did stick to the road sector**

The fungibility of aid—in which donor aid earmarked for a project substitutes for rather than supplements local spending intended for that purpose—has important implications for its effectiveness. And if aid ostensibly tied to a specific intervention simply displaces local resources, it becomes difficult to determine exactly what its development impact has been.

How much aid fungibility is there? There is little consensus. Most economists think that fungibility is the norm, while most aid donors behave as though there were none. The issue is routinely ignored in project work.

Aid fungibility has typically been examined using cross-country regressions on macro aggregates over time. In a new study van de Walle and Mu take a different approach, using impact evaluation methods to examine the issue in the context of project aid. They estimate the impact of a World Bank-financed rural road rehabilitation project in Vietnam on the kilometers of roads actually rehabilitated. The authors ask, did the aid for this project end up funding what the donor intended?

From a theoretical perspective the expected outcomes are ambiguous. Economic theory predicts that if project aid is less than or equal to what recipients intended to spend, they will spend as planned and treat the aid as general budget support. The aid will be fully fungible, and there will be no difference in impact between project areas and the nonproject areas used for comparison.

Against that is plentiful empirical evidence for “flypaper effects”—in which grants to local governments stimulate much higher local spending of the type intended than would an increase in community income, so

that the money “sticks,” like flies on flypaper. Theoretical contributions have shown how such effects can be generated. Others have argued that what appear to be flypaper effects are in fact due to biases in evaluation methods.

The Vietnam project stipulated that the work entail rehabilitating earth roads and not building new roads. Independent administrative data show that an average of 4.6 kilometers per commune were rehabilitated under the project. Supervision and other evidence confirm that the project was implemented as planned. Yet a casual look at the data suggests only half the expected difference between project and nonproject communes in increments of road rehabilitated during the project period. It also suggests that the project communes built significantly more new roads than the nonproject communes did.

Looking casually at data can be misleading. For example, if the project was implemented in communes with different characteristics than the nonproject comparators, simple mean differences will be wrong. Accurate impact assessments of rural roads have been rare because the necessary data are usually lacking. The authors’ study is one of the first to use a panel data set of communes in project and nonproject areas before and after a project to rigorously examine road impact and fungibility.

The authors first ascertain that full fungibility is possible, since most of the project communes would have spent more on road rehabilitation without the project than they in fact received from the project. They then use a difference-in-difference estimator coupled with propensity score matching and weighting methods to determine the impact of the aid and

rule out the alternative explanation that the results are due to model misspecification.

These impact evaluation methods confirm the conclusion drawn from a casual inspection of the data. The impact estimates, controlling for selective placement, suggest a *sectoral* flypaper effect: some of the project funds were diverted from rehabilitation to the building of new roads, but they did stay in the road sector. Diversion was less likely in communes that had been doing less rehabilitation before the project. Spending on rehabilitation plus building accords reasonably closely to the total project allocation.

Thus project communes ignored the donor’s stipulation that they not build new roads. Instead, they imposed their own priorities and diverted

some of the funding to priority road building. The authors also find that the quality of rehabilitated roads improved in the project communes. This again entailed a switch from the donor’s preferred technology of rehabilitating earth roads.

Yet project aid did stick to the road sector. This is shown both by the estimated kilometers of rehabilitated and built roads and by supporting evidence that the project did not lead to the construction of other basic infrastructure.

Impact evaluations have become more sophisticated in recent years, worrying about selection, impact hetero-

geneity, and attrition bias. Yet evaluations still rarely establish that an intervention actually funded what it was intended to fund and was supplemental to local spending. One conclusion from the analysis is that ascertaining this should be a first step in evaluating the impacts of development projects.

**Displacement occurred in that less rehabilitation took place than the aid had (ostensibly) financed. However, the aid stuck to the sector, with the donor getting more built roads**

Dominique van de Walle and Ren Mu. Forthcoming. “Fungibility and the Flypaper Effect of Project Aid: Micro Evidence for Vietnam.” *Journal of Development Economics*.