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Analytical Framework for Evaluating the Productive Impact of Cash Transfer Programmes on Household Behaviour

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Cash transfer (CT) programmes have become an important tool of social protection and poverty reduction strategies in low- and middle-income countries. However, most of their impact evaluations pay little attention to economic and productive activities. The From Protection to Production (PtoP) project aims to study the impact of CT programmes on household economic decision-making and the local economy.[1] This research project is implemented jointly by the United Nations Food and Agriculture Organization (FAO) and UNICEF, and builds on ongoing or planned impact evaluations in seven sub-Saharan African countries: Ethiopia, Ghana, Kenya, Lesotho, Malawi, Zambia and Zimbabwe.

As discussed in Asfaw et al. (2012), livelihoods in sub-Saharan Africa are still based in subsistence agriculture. A common approach toward investigating household decision-making in these contexts is to employ a model where households are both utility-maximising consumers and profit-maximising of agricultural goods, and potentially face market constraints (Singh et al., 1986). Most CT beneficiaries live in places where markets for financial services, labour, goods and inputs are lacking or do not function well. This forces agricultural households to adopt low-risk, low-return strategies.

Households that receive regular and predicable CTs may overcome the obstacles that limit their access to credit or cash. This, in turn, can bring about changes in household behaviour, increase income-generating investments, influence beneficiaries' role in social networks, increase access to markets and inject resources into local economies. Thus, CTs can serve not just as a means of social protection but also as a means of promoting farm-level production gains.

The objective of an impact evaluation is to attribute an observed impact to the programme intervention. The identification of the counterfactual tells us what would have happened to the beneficiaries if they had not received the intervention. A control group that is very similar to the intervention group is necessary to estimate this counterfactual.

The most direct way of ensuring a comparable control group is via an experimental design (randomised control trial, RCT), in which households are randomly allocated between control and treatment groups. This guarantees that the treatment status is uncorrelated with other observable and unobservable variables, and as a result the potential outcomes will be statistically independent of the treatment status.

Experimental designs are often difficult to implement in practice. When this happens or when RCT fails to achieve observable balance among groups, non-experimental design techniques have to be used. In RCTs, the average treatment effect of the CT can be identified simply as the mean difference in outcomes between the two groups. When panel data are available, impact estimates can be improved by applying a difference-in-difference (DD) methodology. By taking the difference in outcomes for the treatment group before and after receiving the CT, and subtracting the difference in outcomes for the control group, the DD estimator controls for unobserved heterogeneity that may lead to selection bias.

With weakened experimental designs or non-experimental settings or when panel data are not available, other techniques are used.

Propensity score matching (PSM) methods constructs a statistical comparison group by matching individual treatment households with control households based on similarities in the probability P(Z) of participating in a CT programme, where Z represents observed control variables measured before programme implementation. Inverse probability weighting (IPW) is a closely related alternative that involves weighting control households using P(Z).

The impact evaluation designs in the seven countries included in this study cover the full range of RCTs, weakened experimental designs and non-experimental designs.

In addition to examining the overall mean impacts it is important to understand how CTs affect different types of individuals and households. For those programmes with fixed transfers, the impact is likely to vary by household size, as the value per capita of the transfer is greater for smaller households. Labour allocation decisions at the individual level are likely to vary between males and females, and between adults and children. Production decisions may vary according to the availability of household labour, geographic location and/or by access to key assets such as land.

To identify the economic impacts of CTs, data collection encounters two main challenges: gathering more detailed information in the context of an already overcrowded survey instrument, and the trade-off between in-country and cross-country comparability. The first priority should be standardisation with existing national instruments. When appropriate, one should push towards greater details of relevant modules along the lines of emerging international good practices, such as the Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA) project in sub-Saharan Africa. Impacts on income generation strategies are captured in part through the investment and agricultural production impacts, but they must be triangulated with changes in the labour allocation of household members and net income from household non-agricultural enterprises.

Ascertaining the productive impacts is a new area of research among impact evaluations of CT programmes. It has important implications for policy; given the increasing popularity of CT programmes in sub-Saharan Africa, the time is ripe for understanding their full impacts—intended and unintended. This can help inform the ongoing policy debate by documenting the full contribution of CT programmes to hunger reduction, poverty reduction and inclusive growth in addressing concerns about sustainability and analysing the productive and economic contribution of social assistance.

References:

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Note:

1. See< http://www.fao.org/economic/ptop/en/>. The PtoP project forms part of the larger Transfer project: <http://www.cpc.unc.edu/projects/transfer>.

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