Comments on: Development assistance in the presence of poverty traps: Assets, risk and social protection

By John Hoddinott

In this paper, Michael, together with his co-authors Chris Barrett and Munenobu Ikegami make three contributions to the literature on poverty traps.

First, they extend models of asset dynamics to include heterogeneity in ability. Previous models of poverty traps assume (implicitly) that individuals are homogeneous in abilities. In these earlier models, non-convexities in production or market failures (for example, credit market imperfections) or some combination of the two create a poverty trap. The introduction of heterogeneity in ability allows Michael and his co-authors to refine their categorization of households; rather than thinking of households of being either above or below some threshold (the "Micawber threshold" in the language of Barrett and Carter); there is a heterogeneous group of poor people; those with "high" ability who will manage to move out of poverty over time; those with low ability and few assets who are "intrinsically chronically poor" and an intermediate group in terms of ability. This third group may or may not become chronically poor.

This extension to standard models conveys a clear gain in terms of policy toward social protection and this is the second contribution of the paper. In many development debates, expenditures on social protection, broadly defined, are seen as direct competitors to expenditures on real" development, such as roads or investments in markets. Many of us are uneasy about such a dichotomy; the second contribution of the paper is to show that it is false. Specifically, absent social protection, for households with middling abilities and assets, to quote from the paper, "in the face of asset risk, the extraordinary sacrifice of consumption required to reach the high equilibrium is no longer doing, and the household will pursue the low level, poverty trap equilibrium. For such households, social protection that leads to risk mitigation is the *sine qua non* of development interventions, not merely add-ons.

Finally, the paper encourages hard thought about the trade-offs between assistance to various groups of the poor. Under certain scenarios, well-meaning efforts aimed at poverty reduction actually are associated with increases in poverty as, over time, the middle group slides below the Micawber threshold. This forces donors to increase their expenditures on assistance to those who are chronically poor, reducing funds that would assist this middle group and over time, to use Carter's phrase, creating an "aid trap". The third contribution of the paper is to illustrate that for a fixed aid budget, addressing this trade-off depends on the welfare function adopted by the donor.

This is a nicely written, clear paper - I understood, or I think I understood, most of these ideas on my first read of the paper. These contributions, particularly the third, are helpful as many of us continue to struggle with the policy implications of poverty traps. In what follows, I would like to offer a mix of suggestions, extensions and criticisms, aimed at helping the authors improve the paper and stimulating discussion this afternoon.

The paper assumes that individuals are characterized by "innate" abilities or perhaps to be slightly, and helpfully more precise, levels of ability that are time invariant. Relaxing the assumption of time invariance could offer several interesting extensions, both in terms of modeling and in terms of policy implications. I have in mind relaxing the assumption of time invariance along two dimensions.

First, suppose we describe individuals as living in two "epochs". In epoch #1, individuals are born with innate abilities but these are malleable or changeable, reflecting investments in abilities by parents and outsiders such as donors. This period could last from when some one is born until they attain adulthood, say at age 18. In the subsequent, second epoch (say as adults), they combine these abilities with capital in the way described in this paper. This extension opens up a new policy space for donors. By providing positive "shocks" to abilities (ie interventions that have permanent effects on ability), they shift more individuals into the higher ability group, those lowering the risk of becoming chronically poor. I have in mind interventions such as carefully designed nutrition supplements aimed at very young children. IFPRI research, such as the

Guatemalan Human Capital Study, show such interventions have permanent effects on abilities; ie they are causally associated with increased cognitive abilities in adulthood as well as with higher levels of productivity. A second can be thought of as preventative. IFPRI research shows that adverse shocks, such as droughts, which increase stunting in pre-schoolers, can have permanent effects on abilities (as measured by stature and schooling). Here, the policy intervention designed to mitigate these shocks reduces the likelihood that individuals shift into low ability groups.

Second, suppose that ability levels vary over time, depending on the technologies individuals choose to use. Specifically, "high technology" increases ability while use of low technology leads to a degradation of skills over time so that a high or medium ability person who chooses a low technology gradually becomes a low skill person over time (think of this as the "use it or lose it" dimension of ability). A nice implication of such an assumption is that, I think, reduces the need for "triage"; modest nudges to individuals to adopt high technologies increases their abilities and thus accelerates their accumulation of assets.

Next, I would encourage you to think a little more creatively about your policy interventions. You dichotomize between a high and low technology, with the former characterized by high fixed costs (which is, together with credit market failures, the source of the non-convexity in the model). But these costs need not be immutable and one could think of external interventions that reduce these. For example, if the high technology package is improved seeds and fertilizer, and the fixed cost reflects a cost of buying these (they only come in a 100 kg package) and learning how to use them (the instructions are only in German); then the policy intervention is to reduce the packaging size and provide pictures showing how these are to be used.

A second is in the realm of risk mitigation. A nice feature of the paper is the way it illustrates how the presence of risk pushes outward the Micawber threshold. But this observation also suggests an intervention strategy; that of interventions that push this back inwards; risk reduction strategies in the parlance of the social risk management

literature. Rainfall insurance is one example. In the model set up here, such interventions would lower the value of θ.

The paper assumes a common discount rate for all individuals. While this is helpful as a simplifying assumption, I wonder if there are gains to be had by exploring the implications of relaxing this assumption. Suppose you assume a distribution of discount rates, rather than a distribution of abilities. My guess is that you would end up with results that are not too dissimilar to those you have presented here. Some individuals with "middling" levels of impatience slip needlessly into chronic poverty over time. This would have a different set of policy implications; the key one being that measures that "bind the hands of the poor in terms of the choices they make" (I am thinking of CCTs or micro-saving schemes that have a compulsory savings component here) become more important.

Lastly, in the simulation models at the end of the paper, households can be really poor for a long time but no body ever dies. This is a strong assumption; one could credibly argue that prolonged spells in deep or chronic poverty increase mortality risk. One way of accommodating this concern would be to weight the social welfare functions used in the simulations so as to give additional weight to very poor households. Doing so would have, I suspect, unhappy policy implications; the aid trap becomes more likely but in turn perhaps this stimulates more creative thinking about interventions and the level of aid assistance.

A concluding comment. At the heart of much work on developing countries is an effort to understand why poor households make the choices that they make given the environments they live in. Understanding these forms the basis of nearly all development assistance. A recent paper, by Abhijit Banerjee and Esther Duflo, in the Journal of Economic Perspectives vividly illustrates choices made by poor people. In their conclusion, they wonder why poor people do not save more, "… one senses a reluctance of poor people to commit themselves psychologically to a project of making more money" (Banerjee and Duflo, 2007, p. 165). The core contribution of this paper is to

make sense of this reluctance and to suggest how it can be overcome to the benefit of the poor.

Thank you (and apologies for not being here in person).