

Book Reviews

Understanding and Reducing Persistent Poverty in Africa

Christopher B. Barrett, Michael Carter, and Peter Little, eds. 2007. New York: Routledge. ISBN 978-0415-41138-7, \$150.00.

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By the beginning of the new millennium, the world had witnessed remarkable reductions in poverty across many developing countries. However, the World Bank reports that as recently as 2005, 25% of the populations of low and middle income countries earned less than \$1.25 per day. The average figures for South Asia and Africa were 40% and 51%, respectively (World Bank, 2009). How do we help the remaining poor? *Understanding and Reducing Persistent Poverty in Africa* is a timely and innovative investigation of this question for three reasons. First, it focuses on persistent poverty. If Christians care about helping people out of poverty, then surely the group in the direst straits are those who are unable to escape it even over several generations. Second, it applies the concept of asset-based poverty measures. Because this approach focuses on the income-generating assets of poor households, it enables us to distinguish structural (chronic, persistent) from temporary poverty, and to determine specific asset changes that could enable escape from poverty traps. Third, it studies Africa, where new ideas on poverty reduction are sorely needed.

For many years, poverty researchers have understood the importance of a household's assets in determining household well-being. Much work has been done exploring the significance of education, financial capital, livestock, land, and health in alleviating poverty. Policies and programs have been designed to remedy lack of access to these assets (e.g., schools, clinics, microfinance) as well as low returns on these assets (e.g., agricultural technical assistance, hybrid seeds, irrigation). Yet poverty measures have been based on income-related variables. Since 2000, researchers have begun to develop asset-based measures of poverty (Sahn & Stifel, 2003; Carter & May, 2001), and to use them to measure the extent and type of poverty in a number of countries outside of Africa (Attanasio & Szekely, 2000; Moser, 2007).

Previously published as a special issue of the *Journal of Development Studies* (2006), *Understanding and Reducing Persistent Poverty* begins with an exploration of the concept of asset-based poverty measures and their advantages for discerning transitory from structural poverty, and for

providing insight into poverty dynamics. This is followed by a collection of interdisciplinary studies that use an asset-based “lens” to investigate poverty dynamics in a wide variety of countries (Ethiopia, South Africa, Kenya, Madagascar, Ghana, Zimbabwe, Malawi, and Uganda), using a wide variety of methods. Some studies are largely qualitative while others offer rigorous quantitative analysis. The exploration of poverty dynamics, in particular, sets this book apart. Insights gained from this research should change the way poverty alleviation is designed.

The introductory chapter by the editors provides a useful summary and roadmap to the book. Chapter 2 by Carter and Barrett introduces the reader to the concept of asset-based poverty measures and their application. This is a fascinating discussion, especially for the uninitiated. In theory, one can determine the asset bundle a poor household would need to just attain the poverty line level of income. This “asset poverty line” allows a deeper understanding of the nature of poverty. First, by expressing traditional measures like the poverty gap in terms of assets, researchers can discern the required increase in income-generating assets that would sustain households in a non-poor state. Second, by focusing on the change in household assets in relation to the asset poverty line, researchers can differentiate between stochastic (transitory) and structural (persistent) transitions into or out of poverty. For example, if a non-poor household falls below the income poverty line, but its asset holdings remain above the asset poverty line, it would be considered stochastically poor, due to some temporary shock. The household would be expected to return to its non-poor status in the future. But if its assets fall below the asset poverty line, this household would have made a structural transition from a non-poor status to a poor status.

Third, using the asset poverty line, researchers can develop a dynamic picture of poverty, and test for poverty traps. Consider, for example, a poor farm household that has no further incentive to invest in equipment due to diminishing returns. Above a certain farm size there might be increasing returns to such an investment. But if the household is unable to access credit or cut back on consumption to finance the land purchase, it will be trapped with the present low level of assets (both equipment and land). In contrast, households with assets equal to this threshold or above will have incentive to accumulate more. Such situations would imply an S-shaped relation between today’s assets and next period’s assets, with multiple equilibria. The dynamic asset poverty line would be an unstable equilibrium. Households with assets just below the line would have incentives to sell them off, moving downwards towards a

poverty trap equilibrium. Households with assets exceeding the line would have incentives to accumulate more, moving towards a stable, nonpoor equilibrium. Thus, longitudinal data on asset holdings could potentially help researchers predict which households might escape poverty over time, and which would be caught in persistent poverty.

This promising approach to poverty raises many questions. How much poverty is really structural (persistent) rather than stochastic (transitory)? What causes persistent poverty and how can people escape from it? Do we find evidence of poverty traps? The chapters following Carter and Barrett offer a wide range of findings that begin to answer these questions.

Whitehead (chapter 6) and Hoddinott (chapter 7) both provide evidence on poverty dynamics and the existence of traps by exploring the responses of poor households to negative shocks. Using some quantitative and qualitative data, Whitehead examines villages in North East Ghana during a long economic decline between 1975 and 1989. Constructing a static asset poverty line based on livestock, farm tools and housing quality, Whitehead finds that the share of poor households that were destitute nearly doubled (12% to 22%) during this period, while the shares that were vulnerable or secure both fell. A vicious circle between poverty and poor management of household labor and land assets is apparent. Faced with shocks, poor households with too little labor and land sold off land or engaged in paid work as part of a labor party on another farm. These practices further reduced the yield on their own assets, entrenching them in poverty. A similar conclusion is found in Peters' (chapter 8) assessment of economic decline in Malawi. Poor households, finding their maize supplies inadequate, reduced their small maize sales even further and increased their wage work on other farms. This deepened their poverty.

In contrast, Hoddinott finds that households near the threshold of a poverty trap are much more reluctant to sell off assets in response to a shock than those well above that threshold. Using data from rural Zimbabwe, he tests econometrically the determinants of livestock sales during recent drought years. The minimum number of livestock (oxen, heifers) to be able to farm is two. While households responded to negative rainfall shocks by selling more livestock, the response of those near the two-animal threshold was indeed significantly smaller than the response of those well above it. Hoddinott's analysis offers some evidence of the existence of traps, but also evidence of poor households' efforts to avoid falling into chronic poverty by preserving income-generating assets. A similar conclusion is found by Little, et al. (chapter 3) in a more qualitative assessment of response to drought in Ethiopia. Very poor Ethiopian households were better able to

retain their asset holdings over the medium term than other households, and recover faster, in part due to diversification of income sources away from rainfed agriculture.

Krishna, et al. (chapter 9) distinguish persistent from transitory poverty, then look for correlations between accumulation of assets and progress out of poverty. Across their sample of Ugandan villages, 35% of households were below the income poverty line. Based on asset holdings, 20% of these were persistently poor and 15% had become poor during the twenty-five years prior. Another 24% had escaped poverty, while 41% remained non-poor. Those in persistent poverty had the lowest asset holdings of the four groups. Based on interview data, the authors found that the “stages of progress” in escaping poverty were differentiated by asset accumulation. Households who could move beyond meeting basic needs to investing in small animals were viewed as just crossing the poverty line. Households who could accumulate more assets (land, bicycles) and then build a permanent house had crossed into prosperity. This evidence suggests that transition out of poverty may involve sequential acquisition of specific types of assets. Using logit analysis, the authors find that losses in health and land assets were significant causes of descent into poverty and inhibitors of escape. Diversification of income sources and business gain were key factors in avoiding poverty or facilitating escape.

Direct evidence on the existence of poverty traps is found in Adato, et al. (chapter 4) and Barrett, et al. (chapter 5). Adato, et al. cite evidence that poverty in South Africa rose from 27% in 1993 to 43% in 1998. Of the households that fell into poverty (25%), nearly all became structurally poor, based on an asset poverty line analysis. Of the few households that rose out of poverty (10%), less than half became structurally non-poor. To evaluate the potential for escape from poverty, the authors estimate the marginal contribution of four types of assets to household income (relative to poverty line income), and construct an asset index for each household in 1993 and 1998. Using non-parametric methods the authors find evidence of the stylized S-shaped relation between assets in the initial year and later years. The poverty trap equilibrium was an asset level equivalent to 90 percent of poverty line income. Households with asset bundles generating about two times the poverty line income were at the unstable equilibrium, from which a small decline would precipitate a downward path to the poverty trap equilibrium. Interestingly, qualitative evidence for 1998-2001 allowed the authors to informally test their predictions. Of those predicted to be caught in (sliding towards) a poverty trap, 70% (54%) were chronically poor in the later period or had experienced a structural deterioration.

With data from three regions in Kenya and two in Madagascar, Barrett, et al. first assess poverty with conventional income poverty lines, then investigate structural income dynamics, and finally asset dynamics. With a 50 cents per day poverty line, more than 70% of their total sample are persistently poor. The higher the market access and agricultural potential of the region, the lower the share of the population in poverty. But geography is not the only causal factor. Regressing income on asset holdings to construct a measure of structural income, the authors compare structural income in an initial year with changes in that income over time. Within all but the poorest region (where all are poor), evidence of poverty traps appear. Using both parametric and non-parametric methods, Barrett et. al. also explore asset dynamics directly, first using livestock holdings in two periods in Kenya, and then using the Sahn-Stifel (2003) asset index. Both analyses show evidence of poverty trap equilibria for all regions with respect to at least some assets.

Understanding and Reducing Persistent Poverty presents important new insights into the dynamics of African poverty. The evidence on the existence of poverty traps and the importance of assets for escaping poverty is convincing. The detailed analyses and blend of methodologies provides deep understanding of poverty in each region. Yet together they suggest important focal points for dynamic solutions to persistent poverty in general. The Kenyan and Madagascar evidence highlights the potential importance of barriers—e.g., lack of access to credit, insurance and/or savings—that render households with few productive assets unable to take on more productive and/or higher risk activities. The evidence from Zimbabwe and Ethiopia vs. Ghana and Malawi suggests that asset management is critical to avoiding further impoverishment. From the Ethiopian and Ugandan evidence, diversification of income sources appears critical for preventing poor households' descent into and facilitating their escape from persistent poverty.

Asset-based poverty measures can help reveal poverty dynamics. This volume helps us see how important that is in shaping dynamic solutions to poverty. Christian economists working on economic development should find both the approach and applications in this book particularly valuable. We share a deep concern for helping the poorest of the poor, the weak and the most vulnerable. And we recognize that even some of the most effective tools for poverty alleviation do not reach these groups, or do not necessarily produce long-lasting improvements for these groups (Graber & Gailey, 2005; Fikkert, 2005). This book demonstrates that asset-based approaches can change the focus of poverty assessment to identifying those who are

trapped in the most severe poverty, and those who are most vulnerable to becoming poor. These approaches can also change the design of poverty alleviation to quantifying the income-generating resources necessary to lift people out of poverty and provide self-sustaining prosperity.

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