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Conceptualizing
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as Vulnerability: Does It
Make a Difference?

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Conceptualizing and Measuring Poverty as Vulnerability: Does It Make a Difference?

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The first UN Millennium Development Goal (MDG) calls for the eradication of “extreme” poverty and hunger by 2015. In quantitative terms, the associated target for this MDG is the reduction by 50% of the proportion of people whose income is less than a \$1-a-day over the period 1990–2015. This goal is reflective of the income (or monetary) approach to conceptualizing poverty.

Many consider the \$1-a-day and other similar measures of income poverty to be conceptually incomplete, the argument being that these measures are inherently static, hence, potentially misleading. In order to really understand the effects of economic growth and other policy interventions on poverty rates, one needs to focus not just on statics but also on dynamics, i.e., on movements in and out of poverty. In this dynamic view, poverty is not just seen as a form of *deprivation* but also as a form of *vulnerability*, where vulnerability refers to the risk of future poverty. The poor are not simply those with lower income and consumption but, more often than not, also face a more constrained and difficult environment within which choices are made (Banerjee 2004). The inimical effect of this risk manifests itself both in keeping some people poor over time, as well as pushing some of the current nonpoor into poverty in the future. According to proponents, this focus on vulnerability is important as it improves our understanding of the micro-level binding constraints to poverty reduction.

This policy brief outlines the dynamic conceptualization and measurement of poverty as vulnerability. We examine how vulnerability is operationalized, and how it differs from the standard \$1-a-day measure of income poverty. Furthermore, we examine whether this change in measurement and conceptualization has the potential to significantly alter the choice of policies and strategies for maximizing poverty reduction. We argue that such an approach emphasizes the centrality of social protection and other risk-mitigating policies for poverty reduction. In addition, this approach underscores the need for careful targeting in policy implementation.

Measuring Vulnerability

The starting point in a dynamic conceptualization of poverty is the recognition that the welfare of households is not simply dependent upon their income or consumption in any given period but also on their exposure to risk. Exposure to risk and vulnerability is not only a constituent dimension of poverty but is also an important cause of future poverty. Inability to smooth consumption in the presence of income shocks due to weak financial institutions and social insurance mechanisms is often a key problem faced by the poor.

Given the importance of vulnerability, some argue that measurement of poverty ought to include indications of susceptibility to risk (Morduch 1994). Just as the inclusion of health and education in MDGs reflects a broader conceptualization of poverty and human welfare, poverty measures that incorporate lack of social protection and lack of access to consumption smoothing mechanisms can be informative. This, though, has not been easy to implement empirically. Recent innovations in data collection, however, have made it easier to explore the estimation of some of these issues. Increasing availability of panel data (i.e., repeated cross sections of the same sample of households over time) allow an identification not just of levels but also of the dynamics of poverty. Even when panel data are not available, there exist means of proxying the extent of vulnerability in a sample.

The simplest indicator of vulnerability using panel data is an estimate of the level of *chronic* versus *transient* poverty in a given country. The idea here is that those who are classified as poor at any given time are actually composed of two groups of individuals: those who are transient poor versus those who are chronic poor. As the names suggest, transient poor are those who move in or out of poverty over time, whereas chronic poor remain poor over time. This distinction can be important: as reported in Dercon (2005b), empirical evidence suggests that transient poverty can account for 20–60% of overall poverty rates. Ravallion (1988) finds about half of total poverty to be transient using south Indian village data. Using data from Pakistan, McCulloch and Baulch (2000) find transient poverty to be in the order of 40 percent.

Pritchett et al. (2000) develop the concept further by deriving a “headcount vulnerable to poverty rate.” This is estimated from data as the likelihood that a household will become poor (or remain poor) at least once in a specified time period. Using data from Indonesia and a poverty line with a 20% headcount ratio, they find that an additional 10–30% percent of households in their sample were vulnerable to

poverty (i.e., they had equal odds of having at least one episode of poverty in 3 years). Other indicators of vulnerability have been derived from the proportion of households in a sample in which consumption responds to known shocks: vulnerable households being those whose consumption dips as a result of drought or other observable shocks, indicating lack of ability to cope. In a recent poverty assessment for Pakistan, for instance, vulnerability of households was derived from the extent to which their consumption was correlated with level of rainfall in the region (World Bank 2002).

A related measure considers both the mean levels of consumption along with its variance in estimation of poverty rates (Morduch 1994). Alternatively, combining income or consumption expenditure with measures of physical and human assets as well as measures of social capital, for example, is believed to be a good proxy of a household's economic status as well as its ability to cope with risks (Dercon 2005a).

Some argue that, when panel data are not available, taking a broader view—by defining poverty as, say, \$2-a-day instead of \$1-a-day—usually captures a large chunk of the population that is vulnerable to extreme poverty (Shepherd et al. 2004). However, this simple adjustment in the measurement of poverty can have sobering consequences: the extent of the population at the “margin” (i.e., those living between \$1-a-day and \$2-a-day) in Asia is enormous: Bangladesh has almost 68 million individuals in this range; Cambodia 6 million; India over 503 million; Pakistan 78 million; and Philippines almost 25 million, to take a few examples (ADB 2005). Hence, the sweeping generalization of assuming that all those who live below \$2-a-day are vulnerable may not be practical.

Does Vulnerability Make A Difference, and Why?

As the previous section has shown, there are ways in which those who are more vulnerable to risk and poverty can be identified using household survey data. The key question from a policy perspective is: does this ability to conceptualize and measure vulnerability make a difference when thinking about poverty reduction?

We argue that it does, and in ways that are not obvious at first glance. The presence of risks can strongly influence even the choice of income-generating activities, what is often referred to as “income smoothing”: there is empirical evidence that suggests that households facing risky environments have a tendency to partake in more conservative economic activities, and those that are also inherently

associated with lower levels of return (Morduch 1995). If risks of unemployment (or underemployment) are high, then individuals may choose not to invest in education as the cost to the individual—in the event the unemployment shock is realized—will be very high. If weather shocks are prominent, then investments in (expensive) fertilizer may prove to be cost-ineffective. Farmers may instead choose to cultivate lower-investment but lower-yielding crops, hence encouraging poverty traps. Other undesirable outcomes include, for instance, high fertility rates among the poor, which are often a means of mitigating income-generation risk.

A focus on poverty dynamics can be beneficial in identifying some of the key micro-level binding constraints to poverty reduction: identifying who are the most vulnerable, as well as what characteristics are correlated with movements in and out of poverty, can yield critical insights for policymakers. A case in point is the recent recognition regarding the importance of health shocks—and the associated lack of protection to these shocks—as a major risk factor for movements into poverty (Xu et al. 2003). Evidence from Pakistan suggests that ownership of livestock is a prominent source of protection from vulnerability (World Bank 2002). Furthermore, literacy and education attainment decreased *poverty*, but education was found to lower *vulnerability* only if at least one household member had post-secondary education. Residence in a province with a high degree of land inequality was also associated with higher vulnerability.

The policy implications of this are notable: a focus on vulnerability underscores the centrality of social protection policy mechanisms as potent poverty reduction tools. In addition, the existence of large numbers of transient poor might suggest that current poverty rates are under-reported or misleading as they would not adequately account for those who are not currently poor but are still at risk of poverty in the future. If chronic poverty is predominant, then this may be suggestive of a more prominent role for structural problems such as poor infrastructure, low human capital, and underemployment. However, empirical evidence on income smoothing suggests that social protection may be necessary even to mitigate chronic poverty.

It needs to be noted, however, that the expansion of the concept of poverty to include vulnerability does not alter some of the basic views of what factors contribute to overall levels of poverty reduction. The importance of governance, human capital, and infrastructure as key drivers of economic growth, employment generation, and poverty reduction remain. What differs is the emphasis on the importance of social protection for ensuring inclusiveness in the development process so as to make growth more pro-poor.

Conclusions

The purpose of this policy brief has been to summarize the recent trend in recognizing the importance of both conceptualizing and measuring poverty not just in terms of monetary and social deprivations but also in terms of exposure to risk and vulnerability. Proponents argue that this expanded conceptualization can influence the choice and design of appropriate policies designed to reduce poverty rates. Indeed, conceptualizing poverty and vulnerability underscores the importance of social protection—both in terms of provision by the government as well as by the private sector—as a policy tool to facilitate reductions in vulnerability and risk of poverty. Plus, a focus on vulnerability helps shed light on some of the micro-level constraints to poverty reduction that may not be obvious from a more macro-level analysis. From a measurement perspective, this underscores the need to focus not just on the poor, but also on those who may be currently nonpoor but at risk of becoming poor in the near future.

To this end, it is important to recognize that Asia's recent growth experience—despite having led to dramatic declines in \$1-a-day poverty—is less rosy when more “generous” \$2-a-day poverty lines are utilized. Staggeringly large numbers are at the “margin”, indicating potential vulnerabilities to myriad shocks for large proportions of the population. Part of this can be explained by growing informalization of the labor force, underscoring the need to focus on social protection, social infrastructure, and formal employment in order to make growth more inclusive as well as to sustain improvements in economic mobility.

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