Development Resilience:
What Evidence Do We Have So Far?

Chris Barrett
October 3, 2017
USAID Resilience Evidence Forum
Washington, DC

Cornell
SC Johnson College of Business

Toward a theory of resilience for international development applications

Christopher B. Barrett[a,b,1] and Mark A. Constas[a]

[a]Charles H. Dyson School of Applied Economics and David R. Atkinson Center for a Sustainable Future and [b]Department of Economics Ithaca, NY 14853-7801

We advance a theory of resilience as it applies to the challenges of international development. The conceptualization we advance for ...

change of a state variable, driving variables, and ... still persist" (1). Later, Holling distinguished bet...

Barrett & Constas (*PNAS* 2014) theory of development resilience.

Core challenge: resilience is unobservable, a **latent variable**. We must estimate it, as it is not directly measurable. And requires longitudinal, ideally high frequency data.

Opinion: Measuring development resilience in the world's poorest countries

Derek Headey[a,1] and Christopher B. Barrett[b,1]

[a]Poverty, Health, and Nutrition Division, International Food Policy Research Institute (IFPRI), Washington, DC 20015; and [b]Charles H. Dyson School of Applied Economics and Management, Department of Economics, and Atkinson Center for a Sustainable Future, Cornell University, Ithaca, NY 14853

widespread interest in building "develop-ment resilience," which has quickly becom-a centerpiece of many humanitarian and d-velopment organizations' programming. But whereas a social science theory

Cissé & Barrett (2016) Approach To Development Resilience Estimation

- Probabilistic, moments-based econometric method to estimate well-being dynamics using indiv/hh-level panel data per Barrett & Constas (*PNAS* 2014).

- Like poverty estimation, a normative method. Assume:

  (i) Level – Minimum acceptable outcome for indiv/hh.

  (ii) Probability – Min acceptable likelihood ≥ level criterion

  Development resilience is sufficient prob. of attaining an adequate standard of living (given shocks and stressors)

- Aggregable/decomposable, like FGT poverty measures.

Evaluation Results Thus Far: Positive

- Private index-based livestock insurance builds resilience (dv: hh herd size, child MUAC) among northern Kenya herders (Cissé & Ikegami 2017)

- Heifer training and asset transfers significantly increase resilience (dv: hh wealth) with benefit/cost ratio ~ 7 in Zambia. (Phadera et al. 2017)

Preliminary conclusion: interventions that address financial market failures – e.g., insurance, credit/grants – causally increase resilience for rural poor.

Evaluation Results Thus Far: Negative

- Income diversification neg associated w/ resilience (dv: exp/AE); crop diversification pos associated, but only > rural absolute poverty line (Cissé 2017).

**Preliminary conclusion: diversification doesn't improve resilience for the poor.
(Consistent w/diversification as an adaptive response that trades off lower risk for lower expected reward.)**

Thank you for your time and interest