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Development Resilience: What Evidence Do We Have So Far?

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Toward a theory of resilience for international development applications

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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 & Constanas (*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.

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

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widespread interest in building “development resilience,” which has quickly become a centerpiece of many humanitarian and development organizations’ programming.

But whereas a social science theorv



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 & Conostas (*PNAS* 2014).
 - Like poverty estimation, a normative method. Assume:
 - (i) Level – Minimum acceptable outcome for indiv/hh.
 - (ii) Probability – Min acceptable likelihood \geq 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.)



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Thank you for your time and interest