Climate Change, Social Protection & Insurance:

Michael R Carter

University of California, Davis & NBER
BASIS I4 Index Insurance Innovation Initiative
http://basis.ucdavis.edu

Innovations in Index Insurance to
Promote Agricultural and Livestock Development
Addis Ababa

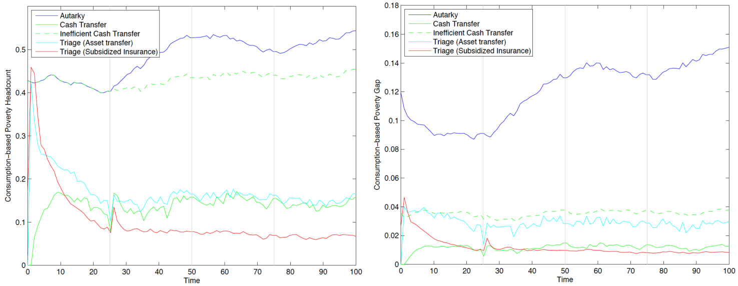
December 2, 2015

Integrated Social Protection & Climate Change

- Earlier today, spoke about the efficacy & cost-effectiveness of an integrated social protection scheme that uses partial insurance subsidies to reduce vulnerability & incentivize investment
- Climate change–understood simply as an increase in the frequency & severity of climate shocks–increases vulnerability & makes it all the more important to find an integrated social protection solution
- Let's look at some results from a simulation analysis done as part of the World Bank's new report *Shock Waves: Managing the Impacts of Climate Change on Poverty*

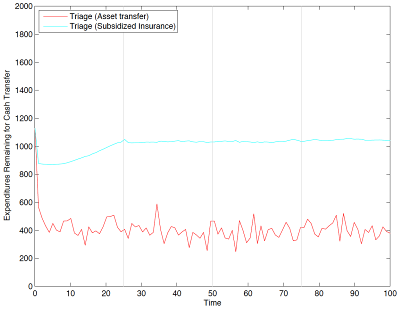
Base Case Climate Scenario: Cash Transfer vs. IntegratedSocial Protection

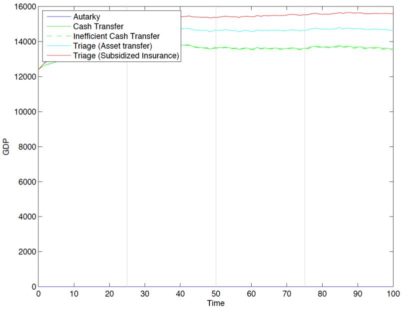
- Taking the same budget constraint, government first spends money offering a 50% insurance subsidy to anyone with less than 35 units of assets
- Residual budget spent on cash transfers as before



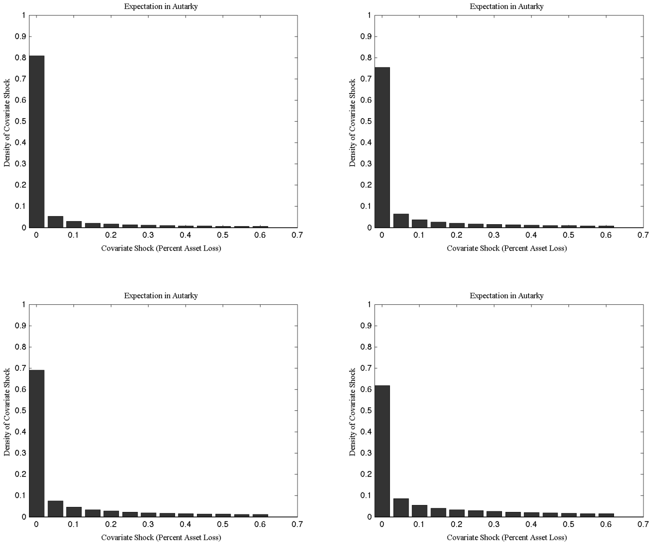
Further Insights into Efficacy of Alternative Schemes

- Insurance subsidy leads to more even draw on budget
- Cheaper too (but note have targeting differences)
- Finally, see growth impacts of insurance (asset transfers are unanticipated, however)

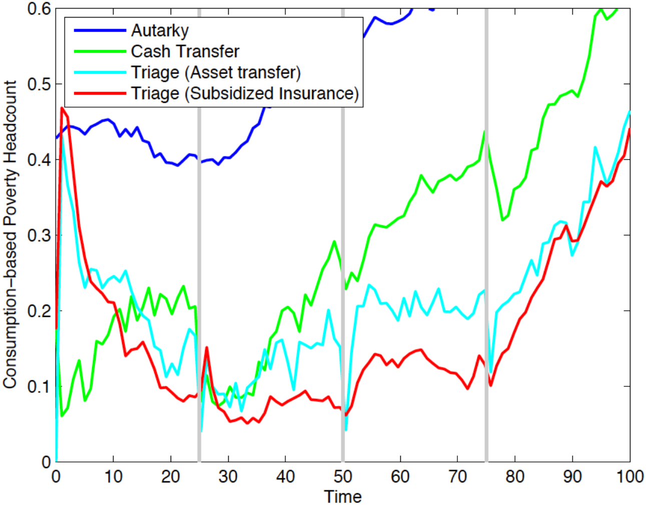




Shocks and Climate Change



Policy Efficacy in the Face of Climate Change



Conclusion

- Weather & other shocks may be an important driver of poverty
- Coping strategies of the vulnerable are partially effective in the short-term, but may fail in the longer-term as the consequences of reduced nutrition are transmitted through to the next generation
- Logic of contingent social protection for the vulnerable is clear:
  - Prevent the growth of the number of destitute (which crowds the social protection budget & increases the poverty gap)
  - Reduce the inter-generational transmission of poverty caused by asset smoothing
- Insurance can in principal serve at least a partially self-financed form of social protection for the vulnerable
- However, if climate change & risk become too severe, then even vulnerability-targeted program lose their efficacy.
- Moreover, pricing risk in the face of climate change becomes even more problematic
- Raises the stakes on finding a public reinsurance solution