

Risk, Growth and Poverty

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Purpose of the talk

- Discuss growth, but not as you think you know it...
- Develop the **conceptual** and **empirical** links between risk, growth and poverty
- With an emphasis on **risk, growth and poverty**;
- Inspire a little...

Conclusions

- Micro-evidence shows that **risk is a cause of poverty**.
- The **macro-literature** on growth and poverty have largely **ignored risk**, and dealt poorly with dynamic poverty issues, such as poverty persistence and traps.
- The **micro-literature** has focused too narrowly on basic agro-climatic or life-cycle risks, **ignoring risks linked to institutions**.
- The **policy response** has to be more subtle than arguing that ‘growth’ or ‘redistribution’ or ‘targeted transfers’ for poorest are effective in theory and practice.

Outline

1. Risk and Poverty
(collating the micro-evidence)
2. Risk and Growth
(scaling up: poverty and growth theory)
3. Thinking about Policy and Research
(what to do)

1. Risk and Poverty

- Risk affects:
 - sustaining one's assets/endowments
 - transforming assets into incomes (activities)
 - transforming incomes into outcomes
- Risky events are 'exogenous' to the individual;
- Agents don't passively undergo risk and shocks, but use risk strategies to shape outcomes;
- Shocks are central to the life of many poor
 - e.g. Rural Ethiopia, five year period (1999-2004): any 'serious' shocks that gave hardship? 95% listed at least one.

**Table 1: The incidence of serious shocks
Rural Ethiopia, 1999-2004**

Type of shocks reported	%
Drought	47
Death of head, spouse or another person	43
Illness of head, spouse or another person	28
Inability to sell outputs or decreases in output prices	15
Pests or diseases that affected crops	14
Crime	13
Policy/political shocks (land redistribution, resettlement, arbitrary taxation)	7

Household actively try to manage risk...

- **Ex-ante strategies**: before the risk occurs, trying to *prevent* risk affecting the household or to *mitigate* the impact of risk
- **Ex-post strategies**: after the risky event occurs, reducing its impact (*coping*) (while ex-ante preparing for this)

Risk strategies

to mitigate and reduce risk ex-ante:

- Diversification, Low risk activities
- Marriage/migration patterns

to cope ex-post:

- Savings as a Precaution (grain storage, livestock)
- Informal arrangements to share risk (mutual support; credit arrangements, insurance groups)
- Family Labour adjustments (incl. children)

Impact of shocks?

These strategies provide some 'risk-sharing and smoothing', but some shocks still matter significantly:

e.g. in rural Ethiopia 1999-2004 data, impact on consumption in 2004?

Drought? -13 to 16%

Output price collapse? -19%

Demand for non-agricultural prod? -20%

Serious illness episode in family? -15%

And plenty of other evidence that it affects other dimensions of well-being – health, nutrition, education, gender.

Impact of shocks?

Overall contribution to poverty is high!

- Actual Poverty (=with shocks): 44%
- Counterfactual poverty without shocks, or the 'chronically' poor: 29%
- OR 'transient' poverty as proportion of total poverty: share is 33%

Policy conclusion?

Behind much of the *safety net* thinking:

- “there is a rightful place for appropriately targeted safety nets for humanitarian reasons to help these ‘temporarily’ poor”
- “but they are a bit of a luxury and they are not near the core of activities to reduce poverty or stimulate growth”

Bring back the economics...

- Risk is something different from ‘just transitory fluctuations’
- ‘Risk’ may cause (ex-ante and ex-post) serious losses in terms of growth and poverty reduction, since it may lead to **poverty persistence and traps...**
- **Risk is a cause of poverty and low growth:**
 - **ex-post** impact of risk
 - **ex-ante** or behavioral impact of risk

Risk as a cause of poverty: the ex-ante impact

Uninsured risk implies that it may be optimal to avoid profitable opportunities. So, **lower risk at the expense of lower returns**

Examples:

Diversification, low risk activities, low risk assets:

- NOT simply due to 'risk averse preferences' but driven by lack of insurance (**constraints**)
- even possibly '**choosing**' to be poor by lack of options...

Risk as a cause of poverty: the ex-post impact

Shocks result in **lost human, physical or social capital**, reducing access to profitable opportunities in the future.

examples:

- loss of livestock/assets;
- stunting and lower educational attainment from poor health and nutrition;
- breakdown of social networks; etc.

Examples: (1) ex-post impact of shocks

- nutrition: temporary 'hunger' leading to stunting, lower school attainment, earnings
E.g. **Zimbabwe**, impact 82/83/84 drought/war.
Shock on children, 16 years later 7 percent loss of lifetime earnings.
- recurring theme in many life histories across developing world

Examples: (1) ex-post impact of shocks

- Impact of **mortality shocks** on children:
 - in **Tanzania**, we find strong impact of the death of a mother during childhood on adult **height** later,
 - and on **educational attainment** at adulthood, suggesting a permanent impact of the shock.
- In **Ethiopia** food consumption effects:
 - persistent impact of drought in 84/85:
 - those seriously affected then, experienced significantly lower growth (minus 10-15%) in 1990s

Examples: (2) ex-ante impact of risk

- YES:
 - many studies find significant effects, few quantify this fully
 - “investment” impact of risk – could be physical, financial, or human capital
- studies in **rural South India**:
 - providing the lowest wealth groups the same ‘protection’ as the highest wealth groups, results in 25-50% higher return per \$ assets,
 - due to portfolio effects;
- **rural Zimbabwe**:
 - quantified micro ‘growth’ effect,
 - suggesting 40% lower capital stock, substantially due to ‘ex-ante’ effects;
- Fertiliser uptake in **Ethiopia**:
 - application rates substantially lower because farmers’ inability to cope with consequences of a drought and its consequences:
 - fertiliser application rates would be up by 8 percent, if downside risk were to be reduced by one standard deviation.

Provisional conclusions

- When shocks occurs, assets are lost permanently, and they may make or keep you poor.
- Given high risk, ex-ante strategies mean low return-low risk portfolio of activities and assets. This means ‘profitable opportunities’ are not taken. If you are poor, your poverty will persist. Getting into poverty is ‘easy’, getting out is ‘hard’.

Conclusions: the time path of poverty

- So: risk is one key factor that puts the time path of poverty largely beyond the control of the poor.
 - Luck may get the poor out of poverty;
 - Bad luck may lock them into poverty, or make matters worse;
 - Risk may make staying in poverty close to inevitable;
 - Even with the best possible effort, you may be trapped;
 - “not the American dream, but the American illusion – some may escape but what may seem to be the reward for hard work, is just luck; the other poor also put in hard work but don’t escape...”
 - Risk-taking will be the route out of their poverty – but it is the inability to take on risk that keeps them behind.

From the micro to the macro-level

- This is a ‘micro’ story – individual poverty persistence, individual poverty traps;
- How to look at this at the macro level? What does risk and its implications mean for the “overall” evolution of poverty over time?
 - How should we think about this?
 - What can one do about it?

Outline

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2. **Risk and Growth**
(scaling up: poverty and growth theory)
3. Thinking about policy and research
(what to do)

Does the poverty literature offer any guidance?

- Much development economics poverty literature is **normative** in nature:

What is the appropriate concept of the standard of living?

How should we measure it?

Two criticisms:

- There is barely a **‘positive’** theory of poverty
 - Focusing on the instrumental/functional role of poverty
 - Focusing on the dynamic processes of poverty
- Even within normative discourse, no place for risk or for time
 - For example:
 - Income/consumption poverty: measuring ‘ex-post’ outcomes, after all uncertainty has been resolved.
 - Policy choices have to be made before veil of uncertainty is lifted.

How does this fit in with Growth Theory?

- Micro-evidence suggests:
 - Marginal returns to assets are low, and investment is low.
 - Risk means that within a country, diversity in marginal returns to capital – with ‘poor’ having a lower marginal return. “Poor and forced to be inefficient.”
- Standard growth theory:
 - “Poor” nation has high marginal return to capital, and efficient.
 - So gradual accumulation by poor nations, or ‘convergence’. The poor just have to be patient...
 - Risk has no place in it... (or just making it a slippery slope).

What about Risk in Growth Theory?

Rarely incorporated explicitly in models, but narrative possible:

- Poor countries face high downside risk and have to stay in low risk, low return assets,
 - with very slow convergence (either slowly, or one day you may have lucky escape, with regular sliding down again)
 - or even a trap (with some non-convexity, you could be trapped forever)
- and those with wealth don't invest in these high-risk places and can allocate between different countries, so poorest countries' wealth in Swiss bank accounts or in Chelsea houses.

How does this fit with growth empirics?

- Empirical growth literature, driving our “big” picture results on poverty and growth
 - No clear place for ‘risk’.
 - If anything, in the “error term” – so assuming transitory risk with no permanent impact (just ‘shocks’).
- Different routes if risk is taken more seriously:
 - e.g. Collier and Gunning, Africa. “macro” picture could not quite handle risk, so they tell a micro story, largely about risk as well.
 - Introduce ‘shocks’ such as conflict or commodity price risk.

How does this fit with growth empirics?

Arguments against taking risk more seriously in ‘macro-literature’?

- Micro-literature: they focus on the ‘wrong’ risks. Climatic risk, illness et al. – do they matter to explain macro-picture?
- This work fails to acknowledge ‘real’ important issues for macro-picture of growth: “macroeconomic policy” and/or “institutions”.
- **Some truth in it? The problems of the micro-literature:**
 - Requires observable variability in data (over space and short periods of time, given short panels);
 - “Common risk” – risk affecting the ‘macro’ context, cannot really be covered, or at least not ‘identified’ in the studies.
 - Other “contextual” risks (such as police, army, power structures) can hardly be included, because again not easy to capture “variability” in micro-data.

Risk is crucial – but what risk?

- Beyond climatic, health, relative price risk etc.
- “Institutional” risks
 - Insecure property rights. E.g. Tenure insecurity perceptions: In Ethiopia, found to have substantial implications for coffee and chat investments: 25% less coffee and 30% less chat due perceived tenure insecurity;
 - Risk related to economic and economic policy environment;
 - Risks related to the State, violence, crime, conflict risks;

'Micro' versus 'macro' risks in analysis

Lesson for growth theory and empirics:

- incorporate risk explicitly in analysis.
- links between risk and growth, and impact of risk on extent to which growth is pro-poor
- Issues related to 'representative agent' model need to be addressed.

Lesson for micro-level research:

- find means to investigate 'broader' risks beyond climate, pests and life-cycle risks.

But still not quite enough

- Key-finding from micro-level work:
“differential marginal returns to capital – with ‘poor’ having a lower marginal return”
- INCONSISTENT with “representative agent” or “aggregate” production function of standard growth theory and empirics!
- But: essential for understanding poverty and its persistence in developing countries.

On diversity in returns...

- Uninsured risk not the only plausible narrative (“poor have to settle for low risk, low return assets and activities”)
- Other well-known narratives:
 - Failing credit markets (“poor have no collateral and get excluded from credit”).
 - Local (spatial) externalities (“poor areas”).
- Common element in narrative: they lead to ‘inefficiency’ for poor or excluded groups – some stay behind.
- Typically, combined with some ‘fixed costs’ or indivisibilities leading to ‘traps’: no amount of effort of these poor will ever get them out.

Diversity in returns and poverty dynamics

Lessons for growth theory:

Needs a “disaggregated” theory or approach to growth to study the ‘dynamic’ process of poverty, that acknowledges diversity of marginal returns within countries.

Lesson for growth empirics:

Poor may evolve in line with ‘rest’ of the economy, or they may face persistence in poverty or even stay permanently behind.

Way forward?

Bring 'poverty' back into economics: A theory of "dynamics", allowing for risk and time

- With time paths of poverty with long and differential persistence;
- With a clear place for the distinct possibility of "poverty traps";
- Economic processes may sustain these traps (in a general equilibrium sense).
- With place for risk as a cause of poverty and its persistence, and the cause of escape for a few winners in the lottery of life.
- Banerjee, Dasgupta, Mookherjee, Ray.

Outline

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2. Risk and Poverty Dynamics
(scaling up: poverty and growth theory)
3. **Thinking about Policy and Research**
(what to do)

Questions asked

Initial poverty and market failures, not least related to risk, conspire to keep some persistently poor or even in a poverty trap.

- What does this mean for policy? What to do?
- How to take this research agenda forward?

What does evidence on risk, poverty traps and persistence imply for policy?

Is growth the solution?

Is redistribution a solution?

Are targeted transfers a solution?

Are insurance markets the solution?

Answers are largely empirical issues, even though theory can offer some principles...

Growth and/or redistribution?

- Leave it to Dollar/Kraay/Ravallion/Bourguignon/Ferreira to work this out in general...

But if “poverty traps”:

- Growth may unravel traps: e.g. a job with a safe but solid return may mean ‘portfolio choice’ of risk and return is superseded.
- But this does not necessarily apply to any growth
 - if job in town is not certain, people may still remain trapped in rural setting since it offers insurance
 - poor may not be able to take advantage of profitable opportunities offered by growth.

Is redistribution the solution?

- In case of risk: Ability to cope is usually correlated with wealth. So, inequality exacerbates the impact of risk, redistribution may have impact.
- **HOWEVER:**
 - the highest impact of redistribution on marginally “constrained” households (i.e. the not-so poor...);
 - Definitely so, if there are thresholds, fixed costs that lead to POVERTY TRAPS;
 - and ZERO impact unless it lifts the poor past these thresholds;

Is redistribution the solution?

- “Small is not beautiful”
- For impact on those trapped in poverty,
LARGE REDISTRIBUTION is needed:
REVOLUTION
- BUT can hardly be analysed “ceteris paribus”

Are targeted transfers a solution?

- Face the same problem as growth or redistribution in general:
 - Schemes may well benefit most the not-so-poor;
 - If poverty traps exist, they may have ZERO return to the poorest, unless LARGE transfers.
- Better if targeted at the mechanisms that cause the poverty traps to emerge, including missing markets to handle risk.
 - A credible, permanent guarantee of some minimum income.
 - But even then, be cautious about general equilibrium effects (for example, credit markets may fail more easily as a consequence)

Insuring risk: what to do?

“Make markets work for the poor”

- some risk can be handled by “contracts”: insurance can be provided, either by market or other institution
 - employment guarantee schemes
 - strengthening ‘local’ institutions, mutual support and ‘friendly’ societies – more creativity needed in engaging with them
 - Offer better working insurance substitutes (credit, savings)
 - Link insurance to credit transactions
 - Rainfall insurance of aid flows (WFP) or of farmers returns (ICICI scheme in India)
- Use ‘market logic’ but not necessarily market.

Conclusions

- Micro-evidence shows that **risk is a cause of poverty**.
- The **micro-literature** has focused too narrowly on basic agro-climatic or life-cycle risks, for example **ignoring risks linked to institutions**.
- But we **need more evidence** on the big picture related risk and its implications on growth and poverty
- In any case, the **policy response** has to be more subtle than arguing that ‘growth’ or ‘redistribution’ or ‘targeted transfers’ for poorest are effective in theory and practice.

