# Discussion of "Human Capital Acquisition and Occupational Choice: Implications for Growth and Inequality" by Mestieri, Schauer & Townsend

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#### **General Comments**

- · Ambitious, rich, and challenging paper
- Important question:
  - Role of credit market in determining human capital, entrepreneurial investments, and economic development?
- Nice combination of theory and data

### Roadmap

- Literature Review: Macro Development
- Are there interesting interactions between human capital acquisition, occupational choices & credit frictions?
- What is the interesting cross-country counterfactual? Credit markets vs. education policies?
- Important difference between human capital and entrepreneurial investments: can't self-finance human capital accumulation
- Current (preliminary) draft is too ambitious/dispersed, better focus on conveying fewer, but clearer messages

### Literature Review: Macro Development

- Theoretical Literature: Many possibilities ... Multiple equilibrium, Aggregate poverty traps,...
  - Entrepreneurship: Banerjee & Newman (1993),...
  - Education: Becker, Murphy & Tamura (1990), Galor & Zeira (1993),...
- Quantitative Macro Literature: Evaluate plausibility of these possibilities
  - Entrepreneurship: Townsend & Gine (2004), Buera, Kaboski & Shin (2011), Buera & Shin (2013), Midrigan & Xu (2014)
  - Education: Preliminary work by Castro & Sevcik (2015), Mestieri, Schauer & Townsend (2015), Samaniego & Sun (2015),

### Interactions between human capital acquisition, occupational choices & credit frictions?

- In standard models of intergenerational transmission of human capital, e.g., Becker and Tomes (1994),
  - If human capital investments are constrained, no monetary bequests
  - Human capital investment on children are (weakly) increasing function of parental income
- When incorporating occupation choices subject to credit frictions
  - Can have monetary and human capital bequests, if off-springs are constrained entreprenuers
  - As parental income rises, schooling might declines when off-spring becomes an entrepreneur, depending on  $\zeta_w$ ,  $\zeta_e/(1-\alpha-\gamma)$

## Interactions between human capital acquisition, occupational choices & credit frictions? (cont'd)

- If the are differences in the skill intensity of subsistence and modern technologies ...
- ... constraints to entrepreneurial investment affects the returns to human capital accumulation
- In the current version of the paper this effect is shut down, but this is an interesting dimension that could be explore

### What is the right cross-country counterfactual?

- Entrepreneurial investment: Credit markets
- Human capital investment?
  - for elementary/high school margins, compulsory schooling, redistribution policies?
  - for the college margin, credit market might be more relevant

### Can't Self-finance Human Capital Investments

- Important insight from macro development literature: self-finance important substitute for credit markets, specially for small scale sectors/ technologies w/o large setup investments, e.g., Buera, Kaboski & Shin (2011), Midrigan & Xu (2014)
- Human capital require large front-loaded time investments,
  e.g., formal schooling, early childhood (Heckman, Humphries
  Mader, 2011; Elango, Garcia, Heckman & Hojman, 2015)
- For these investment self-finance is not an option
- To highlight this point, the paper should consider simulations with a shorter time period (currently four periods lived generations, 16 years)

### Final Thoughts/Summary

- Challenging numerical problem, many state variables, non-convexities
- A successful paper should convince the reader that it is worthwhile combining human capital acquisition, occupational choices and credit frictions
  - new insights are obtained, new data can be explained
  - the effects of credit frictions in different margins can be contrasted
- I would leave the analysis of transition dynamics for another paper. I am a big fun studies of transitional dynamics, but there is already a lot that needs to be digested...