

The Macroeconomics of Microfinance

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Microfinance Revolution

- Small loans, targeted to the poor
- Low default rates: 2.06 – 3.54% (median)
- High growth rates, desire to scale up even more...
- Many recent micro studies ... but no evaluation of macroeconomic considerations

Microfinance narrative

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- Microcredit used for productive activities
- Induces business investment, input use, profits, and entrepreneurship

Flurry of Recent Microevaluations

- India (Banerjee, Duflo, Glennerster, Kinnan, 2011)
- Mongolia (Attanasio et al, 2011)
- Morocco (Crepon, Devoto, Duflo, Pariente, 2011)
- Philippines (Karlán and Zinman, 2011)
- Thailand (Kaboski and Townsend, 2011, 2012)
- More India (Field, Pande, Papp, Rigol, 2011)
- East Africa (Greaney, Kaboski, Van Leemput, 2012)

What we've learned:

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What we've learned:

- Mixed evidence on narratives
- Impacts vary (by household type)
- Impacts vary (by program details! environment?)

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- Are macroeconomic forces important for understanding these questions?

Aggregate Importance of Microfinance (2008)

Country	Borrowers per-capita	MF Loans /GDP
Bangladesh	0.13	0.028
Mongolia	0.13	0.129
Peru	0.11	0.041
Bolivia	0.09	0.107
Vietnam	0.09	0.044
Kenya	0.04	0.036
India	0.02	0.003
Mean	0.02	0.004
Std. Dev.	0.03	0.020

Tough to make progress

- Can't run long-run, macroeconomic experiments
- Cross-country identification is difficult
- But don't let methodological rigidness limit the questions we ask

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5. Feedback: Could new micro studies better discipline macro models?

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 - TFP \uparrow
 - capital \downarrow
 - per-capita income ≈ 0
 - increases wages, redistributing from “rich” to “poor” (marginal entrepreneurs *and* workers)

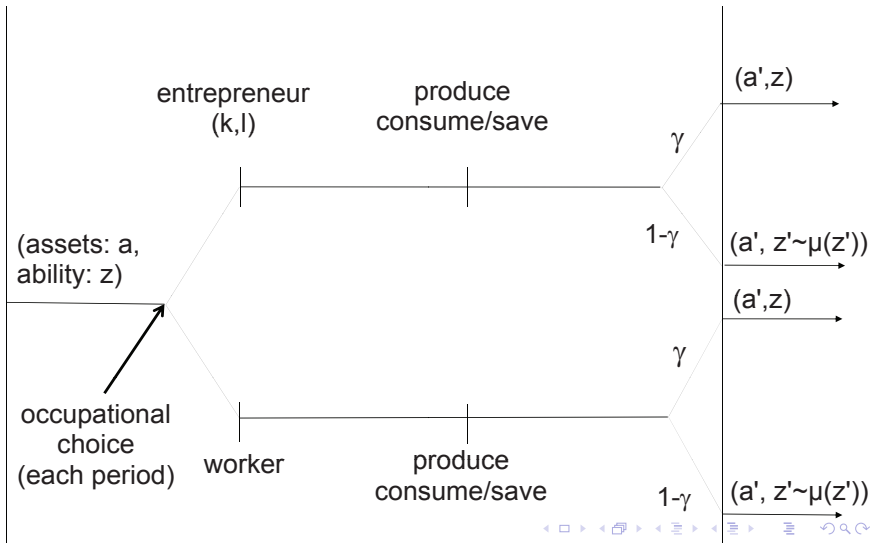
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3. **Important GE effects:** more redistribution but smaller aggregate impact

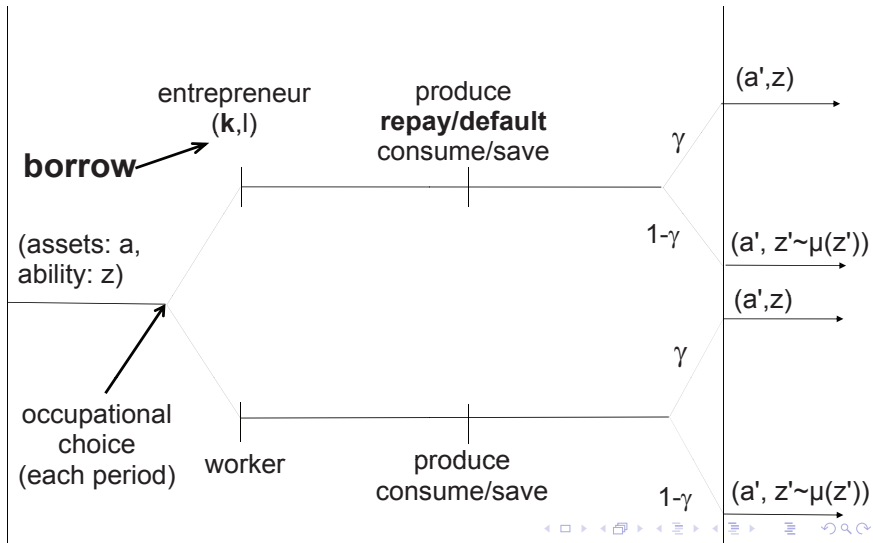
Benchmark Model: BKS, 2011

- Heterogeneous agents: entrepreneurial ability and wealth.
- Occupational choice: Work for wage or operate their own diminishing returns to scale technology.
- Financial friction: limited enforcement.

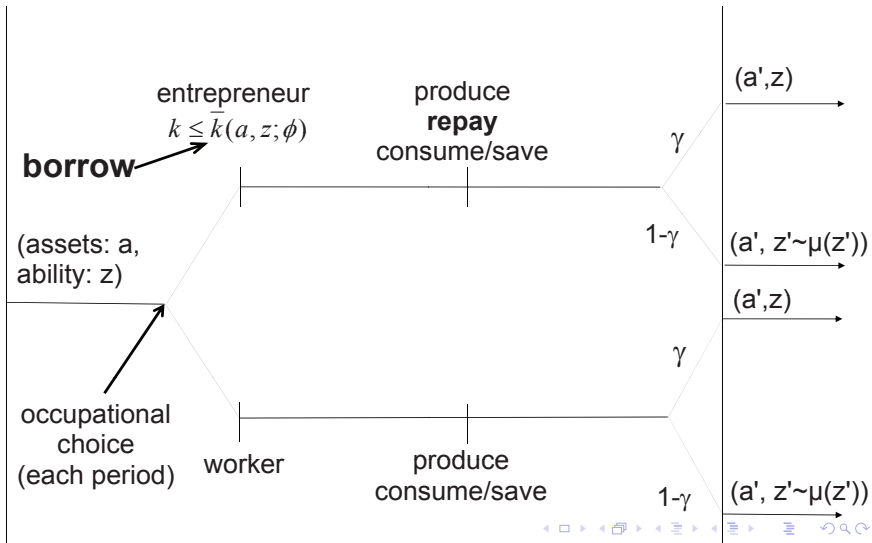
Model Timeline



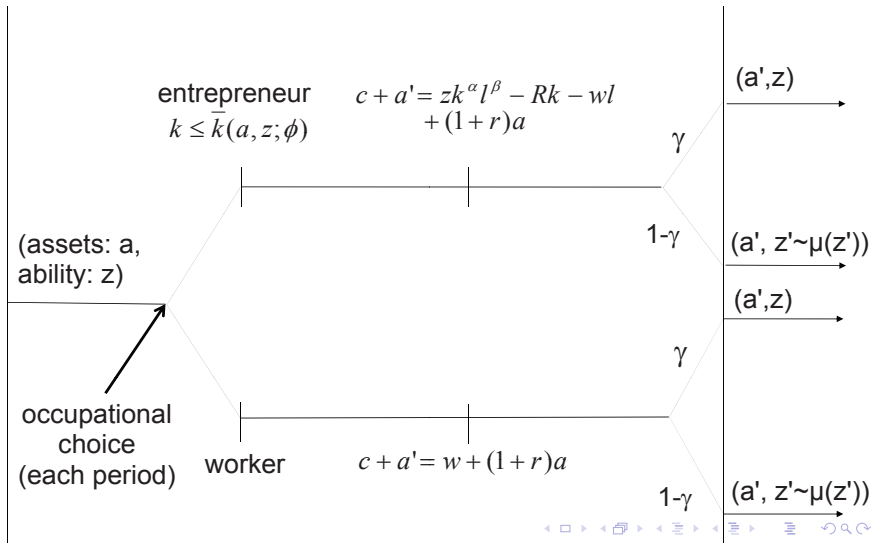
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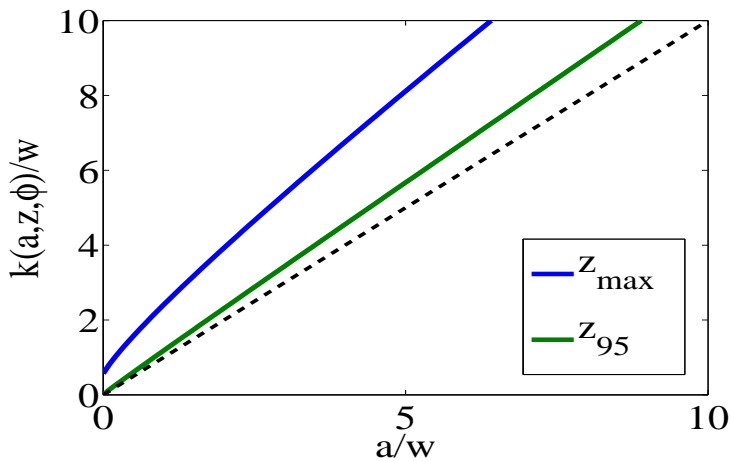
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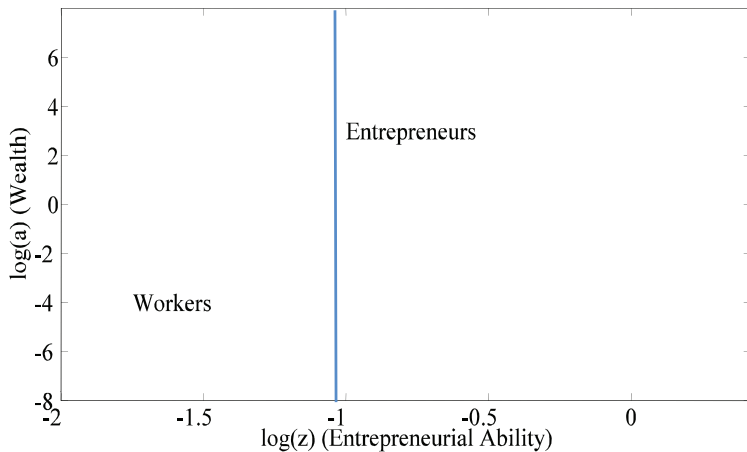
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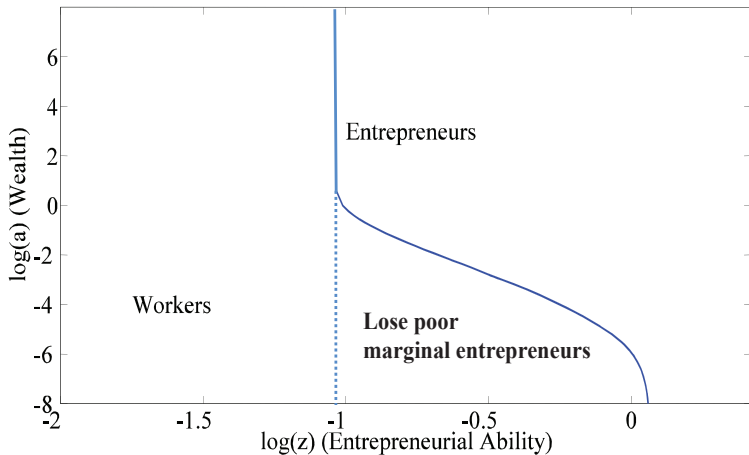
Rental Limit



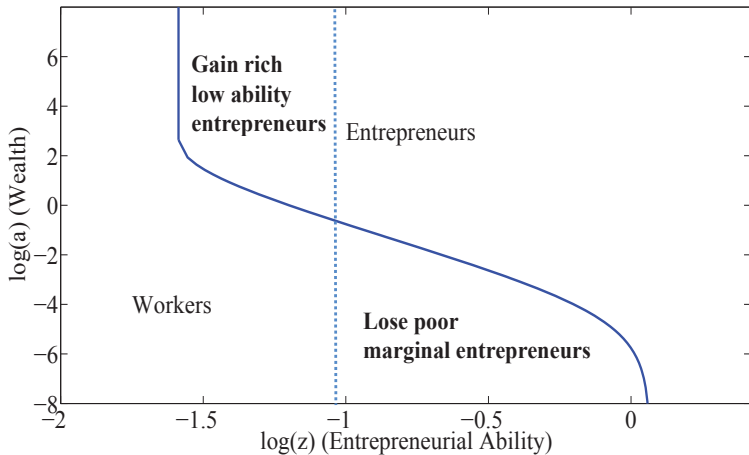
Occupational Choice: Perfect Credit Markets



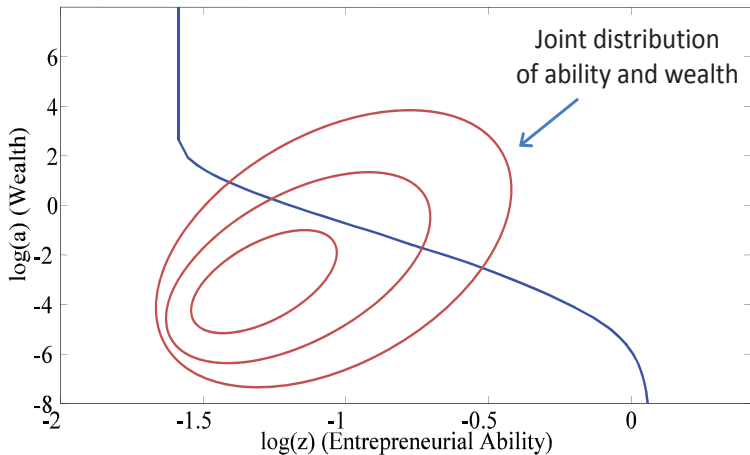
Financial Friction: Partial Equilibrium



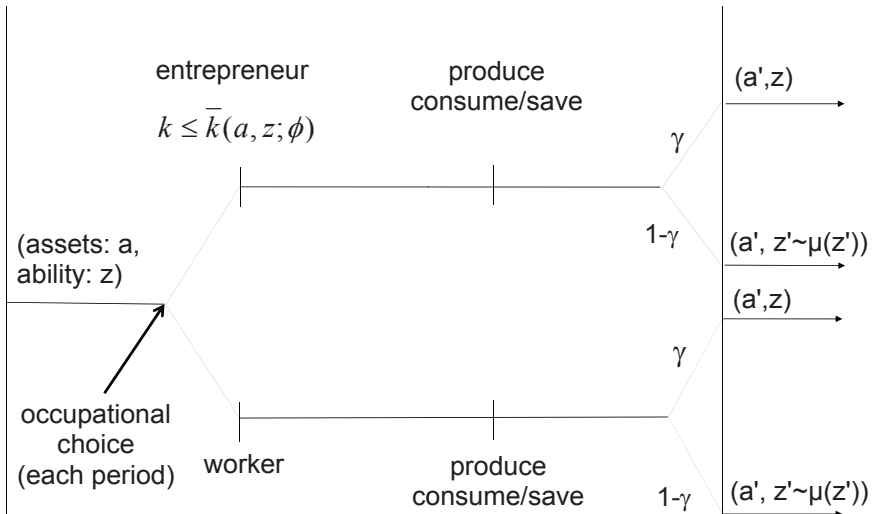
Financial Friction: General Equilibrium



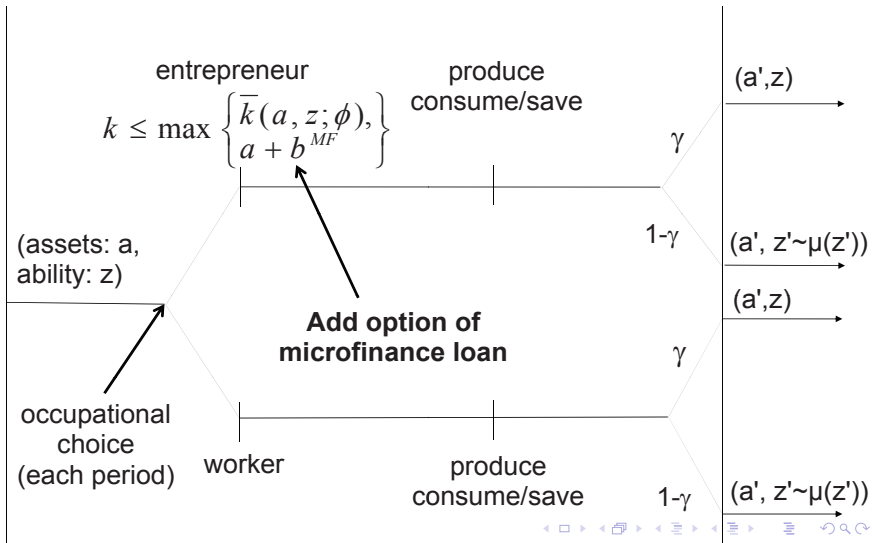
Determining Quantitative Importance



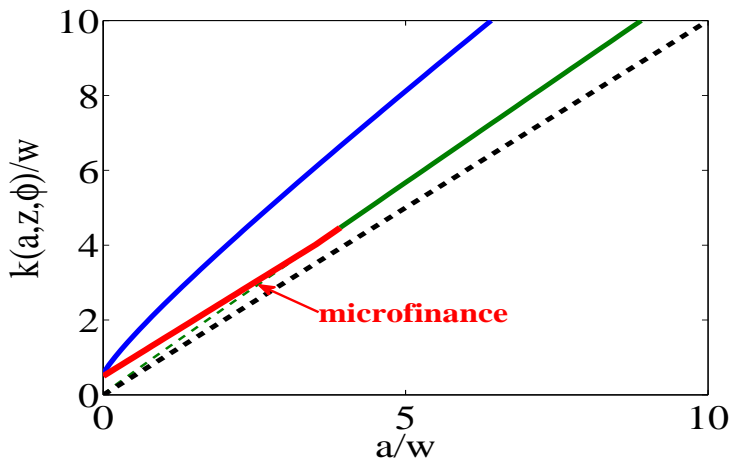
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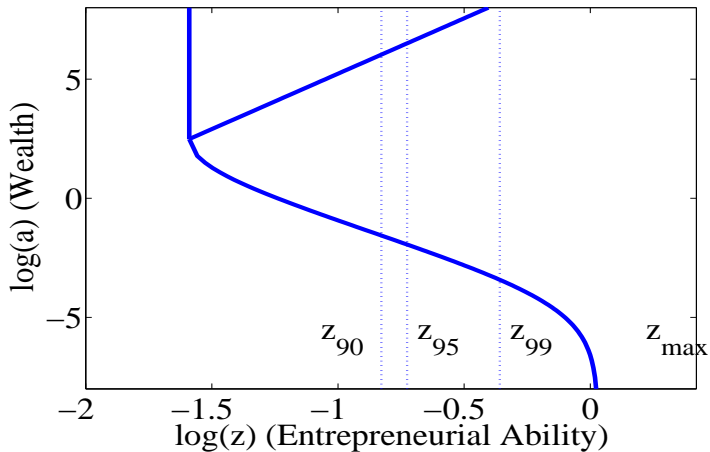
Can Microfinance Undo these Frictions?



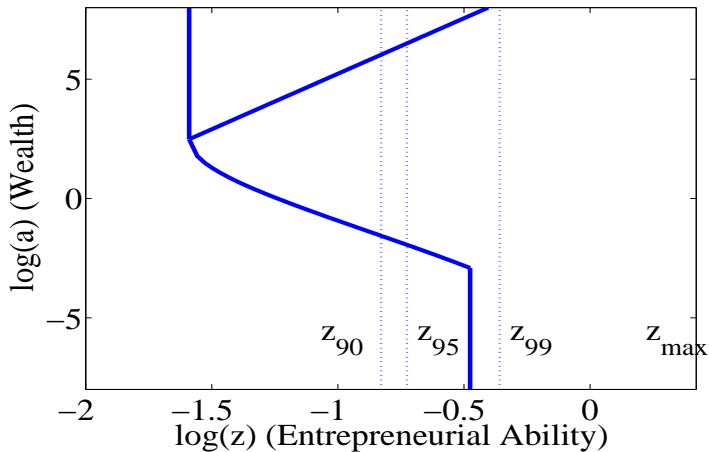
Rental Limit, $b^{MF} = 0.5w$



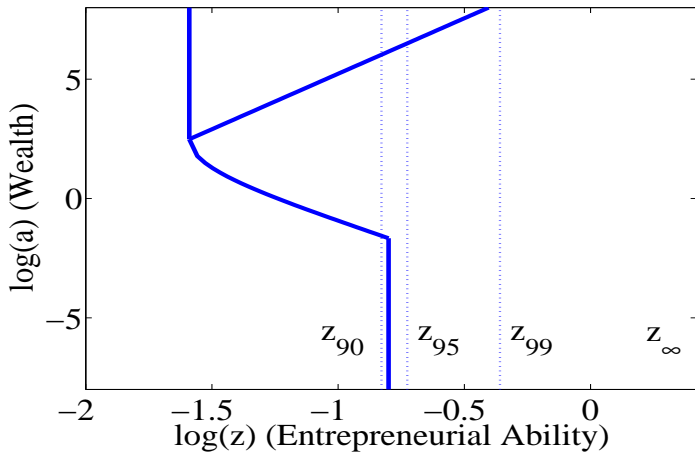
Occupational Choice



Impact on Occupational Choice, $b^{MF} = 0.5w$



Impact on Occupational Choice, $b^{MF} = 1.5w$

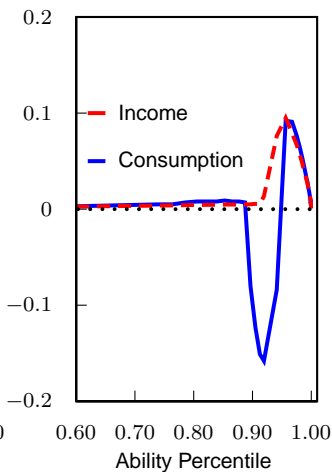
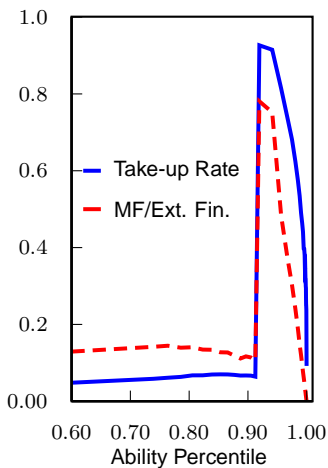


Comparing PE with Microevaluations

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	Model	India	Thailand
	$b^{MF} = 1.5w$		
Max Loan/Exp per Cap	1	1–2	1
Credit/Exp per Cap	0.1	0.1	0.1
Microfinance/Total Credit	29%	44%	33%
Entrepreneurship	+4 pp	+2 pp	+1 pp
Investment	+46%	+16/128%	+35% (prob.)
Consumption	+1%	+16%	+15%

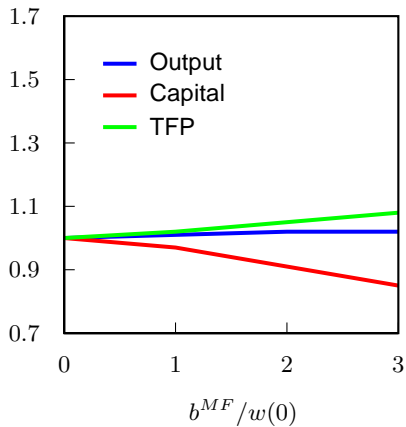
Direct Impact of Microfinance, $b^{MF} = 1.5w$



Aggregate Impact

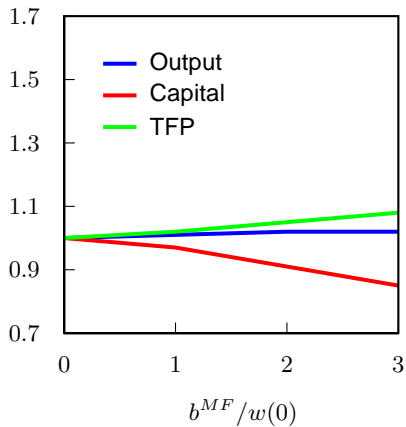
Aggregate Impact

General Equilibrium

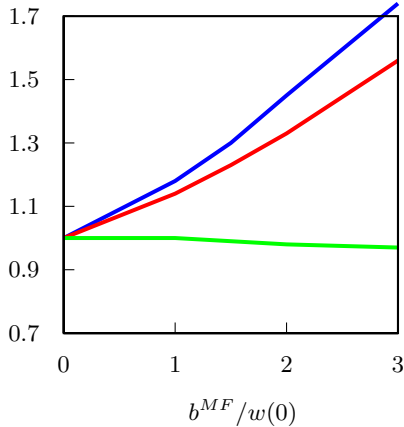


Aggregate Impact: GE vs. PE

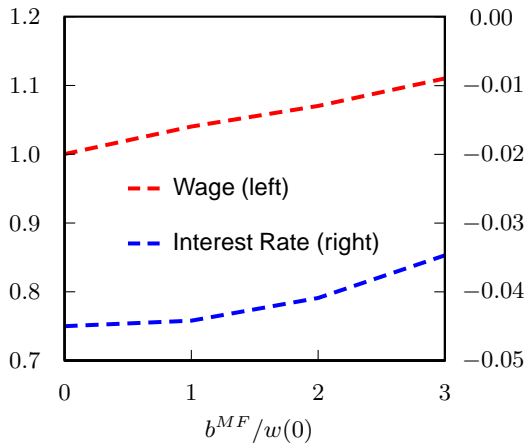
General Equilibrium



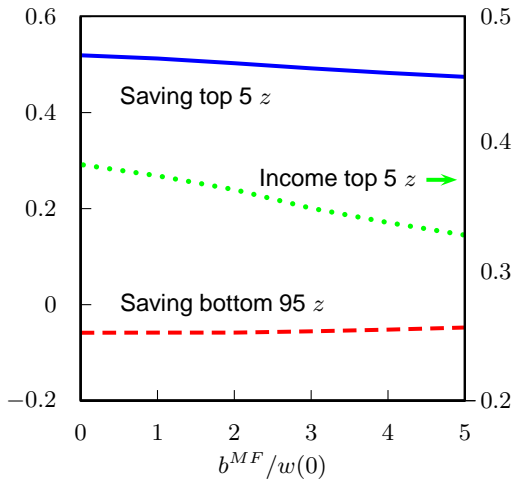
Partial Equilibrium



Factor Prices



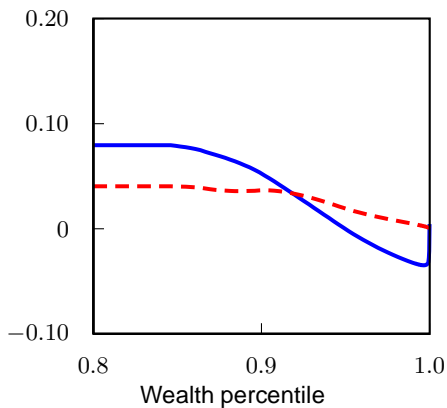
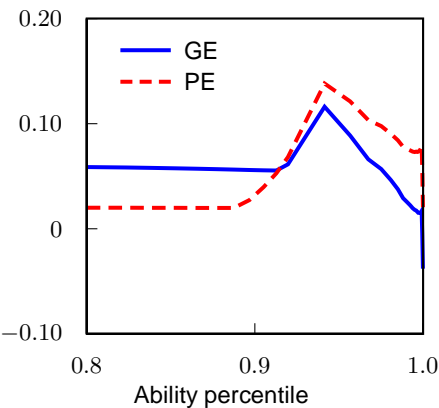
Understanding Capital Accumulation



Distribution of Welfare Gains

Distribution of Welfare Gains, $b^{MF} = 1.5w$

fraction of permanent consumption



Conclusion

- In GE, microfinance is primarily a redistributive policy
- Potential impact on consumption & productivity, but not aggregate output as it discourages capital accumulation.
- More broadly, large gains from trade between empirical development and macro quantitative development