

Risk, finance and development

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A more volatile world

- ◆ Increased commodity price volatility
- ◆ Plus demand volatility induced by macro policies in the developing world
- ◆ What role can we realistically expect finance development in mitigating those risks?

Financial development and macro-stability

- ◆ The theoretical arguments can go either way.
- ◆ Easy to see how financial development might increase risk
- ◆ More leverage means that when things go a little bit wrong, there is increased risk of default
- ◆ Or more leverage means that when things are going well the booming sectors expand a lot, squeezing firm profits and making them less viable in the slightly longer term
- ◆ Note however that both these arguments rely on the firm not being able to refinance itself once it gets into trouble, despite the fact that it got into trouble for no fault of its own.
- ◆ Some form of insurance is missing: in principle greater financial development is also the way to better insurance.

What is the evidence?

- ◆ Not much reliable evidence
- ◆ More financially developed economies are less volatile, but the correlation disappears when you include other controls.
- ◆ We all know of episodes where financial expansion/development generated a crisis
- ◆ How about the crises that never happened?

Table 1. Average growth, growth volatility and investment volatility

Dependent variable:	Average growth, 1960-2000				Growth volatility, 1960-2000	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>initial income</i>	0.002 (0.88)	-0.010 (-3.31) ^{***}	-0.006 (-3.59) ^{***}	-0.010 (-4.07) ^{***}	-0.012 (-3.23) ^{***}	-0.005 (-1.22)
<i>growth volatility</i>	-0.127 (-2.10) ^{**}	-0.116 (-1.27)	-0.113 (-2.64) ^{***}	-0.101 (-1.35)		
<i>investment/GDP</i>			0.002 (10.11) ^{***}	0.001 (5.64) ^{***}		
<i>private credit</i>					-0.024 (-2.09) ^{**}	-0.006 (-0.52)
Controls:						
<i>pop growth, sec enroll</i>	no	yes	no	yes	no	yes
<i>Levine et al. policy set</i>	no	yes	no	yes	no	yes
<i>R-squared</i>	0.078	0.423	0.540	0.617	0.241	0.498
<i>N</i>	106	73	106	73	106	73

Finance and commodity price shocks

- ◆ Aghion, Angeletos, Banerjee and Manova (2010) use a panel data from 21 OECD countries to study this.
- ◆ Construct country specific shocks by weighing world market commodity price shocks with trade shares of the country.
- ◆ Find evidence that financial development mitigates the effect of shocks.
- ◆ Is it financial development or is it something else?
- ◆ Many reasons why this may not be the right answer for developing countries

Table 5. The response of growth to commodity price shocks

Dependent variable: Annual GDP per capita growth

	Baseline specifications			
	(1)	(2)	(3)	(4)
<i>priv credit</i>	-0.004 (-0.45)	-0.008 (-0.75)	-0.008 (-0.75)	
<i>priv credit*shock_t</i>	0.000 (-0.13)	0.006 (0.39)	0.008 (0.49)	0.024 (1.49)
<i>priv credit*shock_{t-1}</i>	-0.005 (-4.63)***	-0.030 (-2.38)**	-0.031 (-2.16)**	-0.035 (-2.90)***
<i>priv credit*shock_{t-2}</i>	-0.003 (-1.56)	-0.005 (-0.59)	0.001 (0.11)	-0.015 (-1.60)
Controls:				
<i>income_{t-2}</i>	yes	yes	yes	yes
<i>abs(shock)≤1</i>	no	yes	yes	yes
<i>comm share interactions</i>	no	no	yes	no
<i>R-squared</i>	0.410	0.456	0.457	0.455
<i># countries</i>	21	21	21	21
<i>N</i>	727	602	602	629

Financial development and micro-risk

- ◆ Even if financial markets increased macro risk, they could help mitigate the resulting risk at the individual level.
- ◆ Traditional mechanisms for dealing with micro risk—getting help or loans from your neighbors
- ◆ Works reasonably well in many instances (Udry (1990)) though there is a lot of variation (Townsend (1995)).
- ◆ Works less well when the shock is correlated within the neighborhood.

How about commodity price shocks?

- ◆ Has first order effects on incomes
- ◆ However less correlated than we might assume
- ◆ Farmers are affected more than landless laborers
- ◆ Farmers do try to diversify—everyone in Cote D'Ivoire has some land under yam—though this is probably inefficient
- ◆ Many rural households now work at least part of the year outside agriculture.
- ◆ On the other hand we want people to specialize--to take advantage of the specificities of land and skills

Savings accounts and risk-mitigation

- ◆ Burgess and Pande study bank expansion into rural India.
- ◆ Used to be a law that in order to expand in to one banked location four branches in unbanked locations had to be set up
- ◆ Using the variation induced by this rule they show that access to a bank branch reduces poverty (though at a high cost)
- ◆ They argue that this is a savings effect. Saving at home is too hard for the poor—banks allow them to hold a buffer stock.
- ◆ Dupas and Robinson found even more encouraging evidence
- ◆ Randomly chosen small businessmen in Kenya who were offered a savings account ended up with bigger, more profitable businesses
 - ◆ Probably the effect of not eating into their working capital on bad days

Microcredit and risk mitigation

- ◆ Randomized Control Trial of microcredit
- ◆ In Hyderabad city (India).
- ◆ Effect on risk could go either way.
- ◆ People who have microloans are less likely to say that they missed a meal
- ◆ Not because they are richer (they are not)
- ◆ Might relax their access to other forms of emergency credit.

Micro-insurance

- ◆ The idea of creating a market for the risks faced mostly by poor people
- ◆ Very simple product to avoid monitoring costs
 - ◆ Rainfall index insurance
 - ◆ Catastrophic health insurance
- ◆ Number of experiments find very limited demand at break-even prices
- ◆ Difficulty understanding all the exclusions that a simple product entails.
- ◆ Might require an introductory phase of subsidized insurance to get people more comfortable with the product.

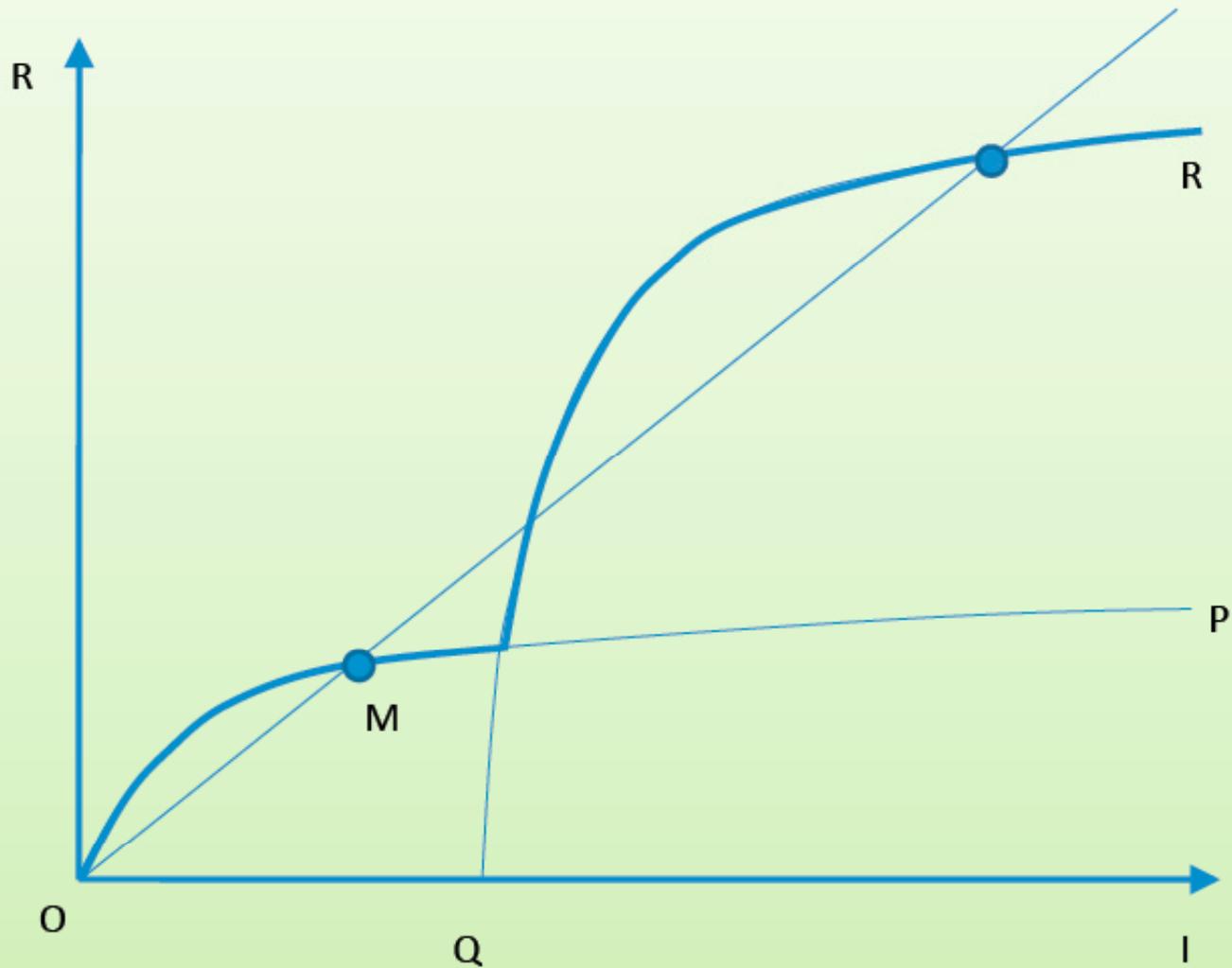
Get the poor out of commodity production?

- ◆ Where are the jobs?
- ◆ Microcredit?
- ◆ A lot of it goes to finance consumption
- ◆ Does increase productive investment (in Hyderabad about 30% increase in the number of new businesses)
- ◆ When it does go into productive investments
 - ◆ Cattle and other farm animals are the most common form of investment in rural areas
 - ◆ Small shops are the most common businesses for the urban poor.
 - ◆ Not a lot of evidence of diversification
 - ◆ Nor of additional job creation

Why?

- ◆ Returns on tiny investments are actually very high
- ◆ De Mel, Mackenzie and Woodruff distribute \$250 to randomly chosen small business owners in Sri Lanka.
- ◆ Find a return of more than 60% per annum
- ◆ However the business owners who got \$500 do not invest the next \$250.
- ◆ Very sharp diminishing returns sets in once the business crosses a certain scale.
- ◆ Perhaps the production function looks like [this](#)?
 - ◆ At least for some of the more talented entrepreneurs?

PRODUCTION



CAPITAL INVESTED

Creating jobs for poor people

- ◆ Requires firms that operate at a very different scale from micro-enterprises
- ◆ How do you put that much capital in the hands of somebody who may have talent but has no money?
- ◆ Banks tend to treat such people with a lot of suspicion—which might even make commercial sense sometimes
- ◆ How do you get the financial system to identify and then finance them?
- ◆ Not an area where we know very much
 - ◆ Lot of East Asian countries did this by a combination of financial repression and directed credit
 - ◆ Not exactly in fashion (India is scaling back its priority sector)
 - ◆ What then?