Banking on innovation
by Frederick Tung

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What's the paper about?

The big idea:
The rules of the game of bank financing have an impact on the innovation behaviour of firms.

Key features of innovation financing

- Knightian uncertainty
  - Skewed returns distribution: A few good investments generate the bulk of the returns (like Bessembinder's view of long horizon equity returns).
  - The key asset is staff (does not like layoffs) demands smooth expenditure profile.
- A hostile environment for financing!

  It's hard to make state-contingent contracts, and removing information asymmetry runs the risk of investor stealing the IP.
- Staged financing? Put in seed capital and keep shutting down various things along the way.

This paper

- Banks are traditionally not seen as the optimal source of financing for innovation.
    - If the loan works, get paid on time
    - If it does not work, get very poor outcomes.
- Innovation seems like an equity financing problem, and not a debt financing problem.
- But some research shows that when the firm goes public, innovation quality declines.

  Recent research shows that debt and bank financing is important.
- Recent research has opened new ideas.
- This paper has a cool literature survey (page 7 to page 20)
- Then some new ideas on financial innovation feeding into banks -> innovation financing.

Two “new” ideas

- Idea #2: banks finance innovation in larger firms.

  Risk management comfort derived from covenants in the debt contract.

  Covenant triggers $\rightarrow$ creditor call for information

  $\rightarrow$ re-financing adjusted to new risk assessment.

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  $\rightarrow$ re-financing adjusted to new risk assessment.
- Idea #3: the ecosystem matters $\rightarrow$ credit default swaps, securitisation, syndication **and** regulatory changes.

This paper is a reminder about how subtle changes in the working of finance have powerful incentive implications for the conduct of firms, and shape one of the most important features of the real economy, i.e. innovation.

Learnings for India

Does innovation get financed by debt in India?

- Drugs sector (biggest innovator in India) : How much leverage?

Non-finance	0.63	0.56	0.49	0.63	0.65	0.62	0.61	0.62	0.57	0.58
Drugs&pharma	0.39	0.36	0.39	0.45	0.49	0.33	0.29	0.26	0.25	0.23
CMIE Economic Outlook, `http://economicoutlook.com`										

  (All comparisons available from
  https://economicoutlook.cmie.com/kommon/bin/sr.php?kall=wreport&tal

- Prima facie, this innovative is more equity financed than the average firm.

Questions for us in India

- Indian research that when creditors get board seats, innovation tends to be stifled –

  Bank Involvement in Firm Management, Panacea or a Pain?, Amit Bubna and Radhakrishnan Gopalan, `https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2024801`
- Need to understand the link between the findings (that banks fund *innovation* in large, established firms for India.

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- The dependence on sensible regulatory response is probably some ways off for India.
  - Banks: Risk averse, super cautious, lend to established firms against collateral.
  - The structure of financial law and regulation disincentivises innovation in thinking and designing products.
    Almost everything described in the paper is missing in India.
  - New ideas? **Source:**
    In service of the Republic: the art and science of economic policy
    Vijay Kelkar and Ajay Shah, Penguin Allen Lane, 2019