

# Fundamental value in the Indian equity market by Rajnish Mehra

Discussant: Ajay Shah

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Nobody likes a theory paper  
except the guy who did it.  
Everyone loves an empirical paper  
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# Questions

We don't know a lot about what (say) the P/E ratio of the stock market should be. So:

- Can we make some statements about the valuation of the stock market?
- Can we do this in the context of an optimising model, grounded in fundamentals?

# Questions

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Why bother?

- If this works well, it gives us a framework to think about an important question.
- E.g. if someone changes the taxation of dividends, it gives us a first estimate of how much stock prices should change
- If this works well, it encourages us to look harder at such methodological approaches
- The journey might throw up some interesting surprises and unexpected insights.

# What the paper does

- A DGE model, more like growth theory
- Nothing is random (!)
- Calibration using Indian NAS and CMIE data

# Intangible capital

- What is intangible capital: organisational capital, scientific knowledge, brand value, patents.
- The paper argues that intangible capital is of essence in thinking about the problem.
- This, in turn, influences our familiar  $Q$  intuition about investment.
- An 'unexpected insight' obtained in the journey.
- The effects are smaller than I had expected.

# Main results

- Yes, the model does pretty well at telling us stories about the valuation of the equity market
- There is no first order mispricing of the stock market.
- Intangible capital : only small effects in India
- Immense importance of tax treatment of capital  
Underlines the 'modern macro consensus' about the desirability of low taxation of capital.

# A suggestion

- Perhaps first show a Mark 1 model without intangible capital
- What is wrong with it?
- Then introduce intangible capital into it
- Show that it helps yield sensible results.

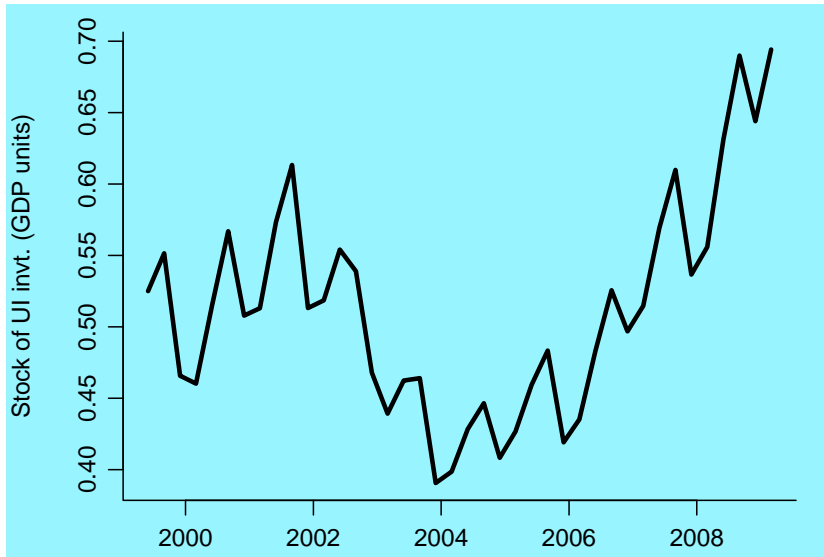
# Depreciation

- What's the right depreciation rate to use in India?
- When trade reforms happened, a lot of outstanding capital stock was destroyed
- When walking out to the frontier, along the way, you throw away many factories at intermediate stages of technology.

## Interpretation of Figure 12 (page 34)?

- Seems to say that after adjusting for intangible capital and changes in taxation, from 3/2002 onwards,  $Q$  went up sharply.
- How does this fare when compared with investment data?
- CMIE Capex: database that tracks all projects under implementation
- At each date, measure the sum of value of the stock of projects that are presently under implementation
- Express this as fraction of GDP

## The investment boom came a bit later



# Deeper problems with the approach

- Notion of 'equilibrium'
- Frequent changes in the tax treatment in India

Thank you.