## Business cycle effect on leverage: A study of Indian non-financial firms

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#### Research Question

#### **Business Cycle and Leverage:**

How Business cycles effect firm leverage?

- ► Gertler and Gilchrist (1993) find it pro-cyclical for all firms
- Korajczyk and Levy (2003) find the variation based on firm's financial constraints

**Pro-cyclical**: For constrained firms

**Counter-cyclical:** For Unconstrained firms

#### This Paper:

Document relationship in context of India

### Results

#### For sample of listed, non-financial firms

- ► Increase in leverage during recession years
  - ► Only for unconstrained firms
  - ► No increase in leverage for unconstrained firms
- Methodology
  - ▶ Panel Data : Fixed Effect Model
  - ► Quantile Regressions
  - ► Financial Constraints: Top Quartile in Market-to-Book & Cash

### Comments

- ► Contribution to Literature
- ► Methodological Issues
- ► Steps going forward

### Contribution to Literature

- ► Halling, Yu and Zechner (2016) find counter-cyclical evidence for international sample
  - ▶ Do not find evidence for firm characteristics effecting speed of adjustment
  - Small drop in speed of adjustment in common law countries
- This Paper
  - Find firm characteristics i.e. Financial constraints affect speed of adjustment
  - Evidence in India-common law countries

### Fit in Literature

- Why make it another paper testing the above hypothesis in India
  - India provides very different institutional setting compared to other common law countries
  - ► For example: Less developed bond market and reliance mostly on bank credit for debt is an important distinguishing factor.
  - Exploit variation in access to finance using various policies like priority sector lending, differential access to bank credit over different states

# Methodological Issues

- ► Standard errors are clustered not sure
- No result for constrained sample could be due to lack of statistical power
  - ► Try these tests in single specification
- Result/prediction on interactions not clear

# Steps Forward

- ▶ Add more firms like non-listed firms
- Exploit the banking relationships more
  - Number of lenders play important role
- Access to finance measures like
  - ► Ljungqvist and Farre-Mensa (2016) provides different measures of financial constraints

## THANK YOU