Outline

Motivation and Introduction

Scandal at Satyam

Empirical Hypotheses

Data

Results

Conclusion
Motivation

Companies Bill 2011 tabled in Parliament:

“Independent, and non-executive directors who are not independent, shall be liable only in respect of such acts of omission or commission by a company that had occurred with their knowledge, attributable through Board processes, and with their consent or connivance or where they had not acted diligently.”

“Independent directors in charge of audit committees in companies may be held responsible for actions taken by the management.”

- Hindu Business Line, July 10, 2011
Motivation

- An increasing trend in personal liability imposed on IDs in the U.S. as well

  - Outside directors at Enron & WorldCom paid $31m from their own pockets to settle class-action suits

  - Following recent financial crisis, in Dec 2010, FDIC authorized lawsuits against several outside directors of failed financial institutions for gross or simple negligence
Motivation

- Debate about increasing liability imposed on IDs

- Steve Cutler, Director, SEC Division of Enforcement:

  “... a recurrence of the corporate abuses that led to the adoption of Sarbanes-Oxley Act could be prevented by creating more personal accountability and deterrence for directors.”

- Alan Hevesi, NY State comptroller & trustee of its Common Retirement Fund, the lead plaintiff in WorldCom case:

  “(it) would be unfair and not a deterrent for future failures on the part of directors if they weren’t held personally liable. The notion that companies can commit fraud and that the directors can ignore that and be covered by insurance is just wrong.”
Introduction

- Increasing liabilities of IDs presents a trade-off
  - Benefit: Potentially ↑ ID vigilance => ↓ cases where IDs found “sleeping at the wheel”
  - Cost: ↑ costs for IDs, altering the cost-benefit trade-off faced by IDs => shrink supply of IDs

- This study: What is the effect of a perceived ↑ in personal liability faced by IDs on:
  - Board composition
  - Director remuneration

- Use events of Dec 08 - Jan 09:
  - Satyam fiasco and Nimesh Kampani episode
Main findings

- Satyam fiasco + Nimesh Kampani episode =>
- Perceived ↑ in personal liability faced by IDs
- Aggregate effects on India Inc:
  - Shrinkage in the long-run supply of IDs,
  - Adverse effect on boards
    - Number and quality of IDs on boards decreased
  - Increased cost of ID services (ID remuneration ↑ by over 30%)
Main findings

- Outcomes starkly in contrast to minimal effects post
  - Enron and Worldcom scandals in the U.S.
  - Parmalat scandal in Italy

- Originates from market failures that characterize emerging markets
  - D&O insurance market is absent
  - Other monitoring channels to complement ID monitoring do not exist
  - IDs’ perceived impotence led them to vote with their feet

- Important policy implications for
  - India and other emerging developed markets
  - Developed markets
## Outline

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</thead>
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</tr>
</tbody>
</table>
The Natural Experiment:
Two unrelated, yet simultaneous events

- Event 1: Unexpected failure of 4th largest software exporter in India after revelation of long-standing accounting fraud

- Market capitalization of 3.98 billion US dollars in Nov ’08
  - Zero-debt company with over $1.2 billion in cash reserves

- Decorated for Corporate Governance Practices

- Stellar board including Vinod Dhams and Krishna Palepu
Event 1: The Unexpected Scandal at Satyam following revelation of accounting fraud

- **Dec 16, 2008**
  - Board approved acquisition of two real-estate companies held by sons of Satyam founder & chairman Ramalinga Raju
  - Rescinded within 8 hours on major ADR sell-off.
  - Major sell-off in Indian bourses on Dec 17

- **Jan 7, 2009**
  - Raju discloses long-lived accounting fraud: $1.2bn cash was fictitious
  - Satyam shares fell by 77.47 % that day
  - Major Indian indices fell by 7.25 % (Sensex) and 6.18 % (Nifty)
  - Raju and other top executives put behind bars
  - Multiple federal enquiries against directors
Event 2: Unrelated prosecution of a prominent independent director

- Nimesh Kampani: a distinguished I-banker in India
  - Had served as an ID on the board of Non-banking Finance Company NFL from 1998 to 1999
- In 2001-02, NFL charged for failing to repay depositors US $20 million
- Surprisingly, in Dec 2008 (just a couple of weeks before the Satyam scandal broke out), arrest warrant issued against Kampani - criminal charges were laid against Kampani.
- Arrest warrant despite Kampani had left the board long before any of the allegations surfaced
- “The biggest fear for IDs is that of being arrested”
  - Amit Desai, Criminal Lawyer
Risk of liability stems from legal ambiguities

- Existing Companies Act, 1956, does not distinguish between an executive director and an independent director.
- Every director has indefinable fiduciary duty to the board.
- This makes both equally liable for the company’s offences.
- IDs can be arrested for minor, unconnected offences:
  - Bounced company cheques
  - Late employee provident fund payments
  - Nimesh Kampani episode
  - All AMRI Directors are behind bars
- Absence of D&O insurance => All ID liability ends up being personal liability.
Fallout of the events: A look at ID exits

Number of independent director exits from BSE-listed firms

Excludes exits of independent directors involved in Satyam
Marketwide increase in personal liability perceived by IDs...

- Unexpected scandals that unraveled within a month’s time
- Incidents led to re-assessment of risks associated with being an ID in India
- No unobserved re-assessments of involved IDs’ abilities due to exits
- Satyam scandal was big enough to rock the entire Indian market
  - National-level government and regulatory enquiries initiated
- An economy-wide shock to the personal liability faced by IDs
Data

- **Directors Database** ([www.directorsdatabase.com](http://www.directorsdatabase.com))
  - Collates data from mandatory filings at Bombay Stock Exchange (BSE)
  - Use data from 2006 to 2010
  - Rich director-specific information

- Use a web-scraping program together with keyword search to extract and code the data
  - Exclude Satyam and exits by Satyam directors from sample

- Combine with CMIE Prowess Database
  - Director compensation and annual financial information
Descriptive statistics (table 3)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obns.</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Independent Directors</td>
<td>13189</td>
<td>0.33</td>
<td>0.75</td>
<td>50.7</td>
<td>40.0</td>
<td>17.2</td>
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<tr>
<td>Independent Director exits</td>
<td>13265</td>
<td>0</td>
<td>9</td>
<td>0.323</td>
<td>0</td>
<td>0.723</td>
</tr>
<tr>
<td>Independent - Executive director exits</td>
<td>13265</td>
<td>-2</td>
<td>9</td>
<td>0.320</td>
<td>0</td>
<td>0.722</td>
</tr>
<tr>
<td>% High quality Independent Directors</td>
<td>12725</td>
<td>0</td>
<td>100</td>
<td>76.1</td>
<td>80</td>
<td>26.6</td>
</tr>
<tr>
<td>Total Remuneration per director (in INR million)</td>
<td>12394</td>
<td>0.11</td>
<td>92.7</td>
<td>1.09</td>
<td>0.27</td>
<td>3.13</td>
</tr>
<tr>
<td>% Variable compensation</td>
<td>9777</td>
<td>0</td>
<td>100</td>
<td>10.94</td>
<td>0</td>
<td>22.22</td>
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<tr>
<td>Board Size</td>
<td>13265</td>
<td>3</td>
<td>27</td>
<td>7.9</td>
<td>7</td>
<td>3.3</td>
</tr>
<tr>
<td>Meetings held</td>
<td>12394</td>
<td>0</td>
<td>42</td>
<td>6.7</td>
<td>6</td>
<td>5.3</td>
</tr>
<tr>
<td>% Board meetings attended</td>
<td>11704</td>
<td>8.9</td>
<td>100</td>
<td>66.6</td>
<td>66.7</td>
<td>15.2</td>
</tr>
<tr>
<td>CEO - Chairman duality</td>
<td>13265</td>
<td>0</td>
<td>1</td>
<td>0.284</td>
<td>0</td>
<td>0.451</td>
</tr>
</tbody>
</table>
Outline

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Supply-side shock

Demand

Supply-after Satyam

Supply-before Satyam

P: Compensation per external Director

Q: Number of external directors

Supply shock => ΔQ<0, ΔP>0
Exits by IDs following Satyam fiasco (Table 5)

Risks faced by IDs likely to increase more than that faced by EDs post Satyam

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Independent Director exits(i,t)</th>
<th>ID exits / Board Size(i,t)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Post Satyam dummy(t)</td>
<td>0.028*</td>
<td>0.041**</td>
</tr>
<tr>
<td>=1 (2009-10), 0 before</td>
<td>(0.014)</td>
<td>(0.017)</td>
</tr>
</tbody>
</table>

Compared to average ID exits of 0.323, this is a **12.7% increase** in number of ID exits
Percentage of independent directors on board

% Independent directors on the board

2007 2008 2009 2010
### Change in % independence post Satyam fiasco (table 6)

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>% Independent Directors(i,t)</th>
<th>2006-10</th>
<th>2006-10</th>
<th>2008-10</th>
<th>2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample:</td>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Post Satyam dummy(t)</td>
<td></td>
<td>-0.473*</td>
<td>-0.629***</td>
<td>-0.684**</td>
<td>0.230</td>
</tr>
<tr>
<td>=1 for 2008-09, 0 before</td>
<td>(0.250)</td>
<td>(0.239)</td>
<td>(0.266)</td>
<td></td>
<td>(0.237)</td>
</tr>
<tr>
<td>Financial Crisis Start Dummy(t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>=1 for 2008, 0 for 2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volatility(i,t)</td>
<td></td>
<td>11.077</td>
<td>1.583</td>
<td>39.444</td>
<td>24.291</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(10.039)</td>
<td>(7.125)</td>
<td>(26.384)</td>
<td>(33.126)</td>
</tr>
<tr>
<td>log(Sales) (i,t)</td>
<td></td>
<td>0.360***</td>
<td>0.247</td>
<td>0.398***</td>
<td>0.420**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.136)</td>
<td>(0.269)</td>
<td>(0.144)</td>
<td>(0.175)</td>
</tr>
<tr>
<td>ROA(i,t)</td>
<td></td>
<td>-1.081***</td>
<td>-0.156</td>
<td>-0.940***</td>
<td>-5.481***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.218)</td>
<td>(0.204)</td>
<td>(0.078)</td>
<td>(2.028)</td>
</tr>
<tr>
<td>R &amp; D Expenditure/Assets(i,t)</td>
<td></td>
<td>12.774</td>
<td>-9.040</td>
<td>7.614</td>
<td>19.470*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(7.807)</td>
<td>(7.937)</td>
<td>(6.307)</td>
<td>(11.076)</td>
</tr>
<tr>
<td>Zero dividend dummy(i,t)</td>
<td></td>
<td>-0.010</td>
<td>-0.423</td>
<td>0.067</td>
<td>-0.402</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.554)</td>
<td>(0.447)</td>
<td>(0.584)</td>
<td>(0.695)</td>
</tr>
<tr>
<td>Promoters holding (%)(i,t)</td>
<td></td>
<td>-0.079***</td>
<td>-0.023</td>
<td>-0.065***</td>
<td>-0.094***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.016)</td>
<td>(0.026)</td>
<td>(0.017)</td>
<td>(0.018)</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>53.816***</td>
<td>52.163***</td>
<td>51.949***</td>
<td>54.174***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.277)</td>
<td>(1.856)</td>
<td>(1.661)</td>
<td>(2.104)</td>
</tr>
<tr>
<td>Firm FE</td>
<td></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Observations</td>
<td></td>
<td>9,881</td>
<td>9,881</td>
<td>6,109</td>
<td>4,037</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>0.013</td>
<td>0.833</td>
<td>0.012</td>
<td>0.019</td>
</tr>
</tbody>
</table>
Relative effect of Satyam based on expected firm performance

- Risk of personal liability to an ID is greater in a firm that is performing poorly \textit{a priori}

- \Rightarrow Decrease in board independence more (less) likely in firms expected to perform poorly (well)
## Difference-in-difference tests: Table 7

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>% Independent directors(i,t)</th>
<th>2006-10</th>
<th>2006-10</th>
<th>2006-10</th>
<th>2006-10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Post Satyam Dummy(t) *High ROA (i,t-1)</td>
<td>1.778***</td>
<td>1.778***</td>
<td>1.778***</td>
<td>1.778***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.480)</td>
<td>(0.480)</td>
<td>(0.480)</td>
<td>(0.480)</td>
</tr>
<tr>
<td>Post Satyam Dummy(t)*High sales growth (i,t-1)</td>
<td>1.018**</td>
<td>1.018**</td>
<td>1.018**</td>
<td>1.018**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.436)</td>
<td>(0.436)</td>
<td>(0.436)</td>
<td>(0.436)</td>
</tr>
<tr>
<td>Post Satyam Dummy(t)*High profit margin (i,t-1)</td>
<td>0.587*</td>
<td>0.587*</td>
<td>0.587*</td>
<td>0.587*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.351)</td>
<td>(0.351)</td>
<td>(0.351)</td>
<td>(0.351)</td>
</tr>
<tr>
<td>Post Satyam Dummy(t)*Accruals (i,t-1)</td>
<td>-0.131 (0.273)</td>
<td>-0.131 (0.273)</td>
<td>-0.131 (0.273)</td>
<td>-0.131 (0.273)</td>
<td></td>
</tr>
</tbody>
</table>

High ROA (i,t-1)  
-0.957*** 
(0.328)

High sales growth (i,t-1)  
-0.066 
(0.277)

High profit margin (i,t-1)  
-1.120** 
(0.516)

Accruals (i,t-1)  
0.054 
(0.067)

Constant  
50.035*** 
(0.285)

Firm FE  
Yes

Year FE  
Yes

Observations  
13,189

R²  
0.785

Results

Board independence decreased more (less) in firms that performed worse (better).
Quality of IDs

- If ID had a business/law degree or was a lawyer/business professional/civil servant
- Risks more for more reputed IDs => decrease in percentage of quality IDs
Change in quality of IDs (Table 8)

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>% High Quality Independent Directors (i,t)</th>
<th>2006-10</th>
<th>2006-10</th>
<th>2008-10</th>
<th>2007-08</th>
<th>2006-10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Post Satyam dummy (t)</td>
<td></td>
<td>-0.952***</td>
<td>-0.689**</td>
<td>-0.333*</td>
<td></td>
<td>-0.265</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.368)</td>
<td>(0.316)</td>
<td>(0.191)</td>
<td></td>
<td>(0.326)</td>
</tr>
<tr>
<td>Financial Crisis Start Dummy (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.593*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.344)</td>
</tr>
<tr>
<td>Post Satyam dummy * Number of ID exits (i,t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volatility (i,t)</td>
<td></td>
<td>-35.370</td>
<td>-1.075</td>
<td>-135.696***</td>
<td>-66.484</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(22.139)</td>
<td>(7.631)</td>
<td>(49.553)</td>
<td>(55.948)</td>
<td></td>
</tr>
<tr>
<td>log(Sales) (i,t)</td>
<td></td>
<td>0.753***</td>
<td>-0.053</td>
<td>0.684***</td>
<td>0.552**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.227)</td>
<td>(0.268)</td>
<td>(0.239)</td>
<td>(0.274)</td>
<td></td>
</tr>
<tr>
<td>ROA (i,t)</td>
<td></td>
<td>-3.134</td>
<td>1.091</td>
<td>-6.241**</td>
<td>0.958</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.150)</td>
<td>(0.998)</td>
<td>(2.478)</td>
<td>(3.058)</td>
<td></td>
</tr>
<tr>
<td>R &amp; D Expenditure/Assets (i,t)</td>
<td></td>
<td>14.711</td>
<td>-16.646</td>
<td>5.746</td>
<td>21.245</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(14.264)</td>
<td>(10.681)</td>
<td>(11.454)</td>
<td>(17.611)</td>
<td></td>
</tr>
<tr>
<td>Zero dividend dummy (i,t)</td>
<td></td>
<td>-2.220**</td>
<td>-0.704</td>
<td>-2.860**</td>
<td>-1.843</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.040)</td>
<td>(0.522)</td>
<td>(1.118)</td>
<td>(1.258)</td>
<td></td>
</tr>
<tr>
<td>Promoters holding (%) (i,t)</td>
<td></td>
<td>0.111***</td>
<td>0.024</td>
<td>0.110***</td>
<td>0.121***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.027)</td>
<td>(0.034)</td>
<td>(0.028)</td>
<td>(0.031)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>70.265***</td>
<td>75.953***</td>
<td>74.792***</td>
<td>71.425***</td>
<td>76.234***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.170)</td>
<td>(2.159)</td>
<td>(2.865)</td>
<td>(3.323)</td>
<td>(0.227)</td>
</tr>
<tr>
<td>Firm FE</td>
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<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Year FE</td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td></td>
<td>9,739</td>
<td>9,739</td>
<td>6,038</td>
<td>3,976</td>
<td>12,725</td>
</tr>
<tr>
<td>R^2</td>
<td></td>
<td>0.021</td>
<td>0.910</td>
<td>0.023</td>
<td>0.020</td>
<td>0.902</td>
</tr>
</tbody>
</table>
### Change in director compensation (table 9)

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Log (Remuneration per director)</th>
<th>% Variable pay</th>
<th>Log (Remuneration per director)</th>
<th>Log (Remuneration per director/Avg. board meetings attended)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
</tr>
<tr>
<td>Post Satyam dummy</td>
<td>0.752*** (0.074) 0.760*** (0.074) 0.539*** (0.083)</td>
<td>-1.219*** (0.424)</td>
<td></td>
<td>0.044*** (0.003)</td>
</tr>
<tr>
<td>Financial Crisis Start Dummy</td>
<td>0.045 (0.080)</td>
<td>exp(0.539)-1 =71.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Satyam dummy *% High Quality Directors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% High Quality Directors</td>
<td>0.002 (0.004)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm FE</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Year FE</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Observations</td>
<td>9,732</td>
<td>9,732</td>
<td>6,052</td>
<td>3,994</td>
</tr>
<tr>
<td>R²</td>
<td>0.231</td>
<td>0.800</td>
<td>0.237</td>
<td>0.251</td>
</tr>
</tbody>
</table>

Control variables: Firm size, ROA, R&D/Assets, Zero Dividend dummy, Volatility, % promoter holding

Linck et. al. find that post SOX non-executive director compensation ↑ by 103%, 80%, & 56% for small, medium, and large firms respectively.
### Change in Independent director compensation (table 9)

Control variables: Firm size, ROA, R&D/Assets, Zero Dividend dummy, Volatility, % promoter holding

<table>
<thead>
<tr>
<th>Financial Crisis Start Dummy (t)</th>
<th>2006-10</th>
<th>2006-10</th>
<th>2008-10</th>
<th>2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Satyam dummy (t)</td>
<td>0.384*** (0.097)</td>
<td>0.453*** (0.104)</td>
<td>0.274*** (0.102)</td>
<td>0.131 (0.112)</td>
</tr>
<tr>
<td></td>
<td>=exp(0.274)-1=31.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm FE</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Year FE</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Observations</td>
<td>518</td>
<td>518</td>
<td>354</td>
<td>204</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.224</td>
<td>0.873</td>
<td>0.197</td>
<td>0.259</td>
</tr>
</tbody>
</table>

Control variables: Firm size, ROA, R&D/Assets, Zero Dividend dummy, Volatility, % promoter holding
Possible demand-side factors

- The Satyam fiasco heightened skepticism about efficacy of IDs in monitoring financial/accounting frauds
  - IDs have to rely on financial information that is controlled by insiders
  - => Potentially market-wide reduced demand for IDs

- Note that demand-side factors are not firm- or director-specific
Incorporating demand-side effects

\[ \Delta Q_s \]

\[ \Delta P_s \]

\( Q \): Number of independent directors

\( P \): Compensation per independent Director

Demand-before Satyam

Supply-before Satyam

Supply-after Satyam
Incorporating demand-side effects

Q: Number of independent directors
P: Compensation per independent Director

Demand-before Satyam
Demand-after Satyam
Supply-before Satyam
Supply-after Satyam

\[ \Delta Q \]
\[ \Delta P \]

Demand-side effects stack odds against finding evidence of supply-side effects

\[ \Delta P_d \]
\[ \Delta P_s \]

opposing

reinforcing
Increased director remuneration provides compelling evidence

- Any decrease in demand would ↓ price

- => Stack odds against finding ↑ in price due to supply-side shock

- ↑ in Director remuneration provides compelling evidence of the effect of the increase in personal liability faced by IDs
Main contribution

- **First study to identify the ex-ante, market-wide impact of ↑ in risk of personal liability faced by IDs**

- **Existing studies examine effect of adverse firm-level events on labor market outcomes of associated IDs**
  - Earnings restatement - Srinivasan (2005), Bankruptcy - Gilson (1990)

- **Apart from IDs reassessing the cost-benefit, such events also lead to a reassessment by firms of the monitoring abilities of the involved IDs**

- **Such reassessment combines with firm-specific factors (such as badly governed firms looking for lax directors) to influence demand for such IDs**
Main contribution

- **First to study the ex-ante, market-wide impact of ↑ in risk of personal liability faced by IDs on**
  - Board composition
  - Director remuneration

- **Existing studies examine effect of adverse firm-level events on labor market outcomes of associated IDs**
  - Earnings restatement - Srinivasan (2005), Bankruptcy - Gilson (1990)

- **We differ from these studies by examining the aggregate effect on boards**
Policy Implications: India & other emerging markets

- Adverse outcomes stemmed from market failures

- Activate D&O insurance market to reduce risks from insiders’ actions that IDs had no knowledge of
  - Such measures will lead to better quality IDs joining boards

- Lack of monitoring support => IDs believe that they are unlikely to be able to reduce likelihood of adverse events

- => Voting with their feet is an individually rational response

- Activate other channels for monitoring of insiders
  - Class action lawsuits a step in the right direction
  - Encourage institutional investor activism
  - A robust market for corporate control by reducing hurdles to hostile takeovers
Policy Implications: Developed markets

- Study shows adverse effects of increasing personal liability faced by IDs
- Cautions against increasing personal liability faced by IDs
- Financial frauds: Management controls flow of information to outsiders
- A priori, not clear whether outside directors should be held responsible for financial/accounting frauds perpetrated by insiders without their knowledge
- Instead, strengthen information flow from insiders to outsiders
- Only penalise if failures happened due to ID oversight/ negligence
Outline

Motivation and Introduction

Scandal at Satyam

Empirical Hypotheses

Data

Results

Conclusion
Summary and Conclusion

- Personal liability faced by IDs has increased post Jan ‘09
- What is the effect on boards in India Inc.?
- We find that an increase in ID liability alters the cost-benefit trade-off of IDs
  - Adversely affects board independence - both the number and quality of IDs on corporate boards
  - Increases the cost of ID services
- Our study is the first to show the adverse effect of an increase in ID liability on
  - board composition and
  - cost of director services
- Throw light on the trade-off involved in deciding ID liability
Thank You