Financial Distress and Investment Incentives

Investment Incentives of Firms in Financial Distress

- Financial distress short of bankruptcy changes owners’ investment incentives in ways that can hurt other claimants
- Therefore, decreasing the likelihood of financial distress (short of bankruptcy) can also improve contractual terms with other claimants

Investment Incentives of Firms in Financial Distress

- Investment incentives of owners of firms in financial distress
  - Underinvestment problem
    - Incentive to pass up good projects
  - Asset Substitution problem
    - Incentive to adopt risky bad projects
Underinvestment Problem

- Consider a firm in financial distress
- A positive NPV projects that requires new funds arises
- Owners may not want to invest their own money,
  - All/most of the returns from the new project might accrue to other claimants
  - In essence, the new project bails out other claimants

Underinvestment Problem

<table>
<thead>
<tr>
<th>Assets</th>
<th>L&amp;E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stuff 100</td>
<td>90 Debt 10 Equity</td>
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</tbody>
</table>

Underinvestment Problem

- Suppose value of stuff falls
- Assets  L&E
  - Stuff 90 90 Debt 0 Equity
Underinvestment Problem

- Can add new equity

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- Assets L&E

Underinvestment Problem

- Suppose value of stuff falls more

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<tr>
<td>Stuff</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>0</td>
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- Assets L&E

- Note that debt has lost value

Underinvestment Problem

- Try adding new equity

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- Assets L&E

- This is the debt overhang problem

- Investment of new equity is a giveaway to debt
Underinvestment Problem

- Need to restructure and add equity
- Assets: 
  - L&E: Staff 80, 70 Debt
  - Cash 10, 0 Old Equity
  - 10 New Equity from cash
  - 10 New Equity from DEBT
- Without restructuring (equity for debt), will not get new equity

Asset Substitution Problem

- Consider a firm in financial distress
- A high risk negative NPV project arises
  - Small chance of really high returns
  - Greater chance of low returns

Asset Substitution Problem

- Recall that equity is a call option on the firm's assets.
  - Downside risk is cut off if low returns
  - Owners get the upside if high returns
Asset Substitution Problem

- Owners may have an incentive to adopt the risky project, because they have little to lose
  - If the project has low returns then owners will get nothing.
  - But they were likely to get nothing anyway
  - If the project has high returns then owners will get something