

BMGT 841: Ph.D. Seminar in Corporate Finance

1. Oral Presentations

- Definition of the problem or salient issue in the paper
- Is this an interesting problem?
- Is this new; if not, how has it examined earlier?
- Where does the paper fit in the literature?
- Methodology: New (innovation) or old?
- Results, proofs, critique
- Conclusions
- Research potential and extensions

2. Written Reports

- Presentation slides, preferably PPT; *due the day before presentation*
- Executive summary – 2 pages maximum

Either of the Following

3. Workshop Critiques (3; each 5 pages maximum)

- Salient issue?
- Has the paper accomplished the purpose it set out for?
- How significant is it?
 - Enhances knowledge
 - Methodological innovation
- Limitations
- Research Potential

4. Paper

- A critiques of an article on a significant issue
- A replication of a significant empirical study
- A literature survey; a critical assessment of an area of research. Analyze the various papers and identify the critical issues
- An original piece of work

5. Class Participation

The Underinvestment Problem

Consider a risky technology with multiplicative uncertainty; $f(I) w$

Where $w \sim \text{unif.}(-l, h)$; $h > l > 0$

Unlevered Stockholder Objective

$$I^e = \text{arg max}_I -I + E \{ \text{Max} (f(I) w, 0) \}$$

Optimality Condition: $f'(I^e) = \frac{2(h+l)}{h^2}$

Levered Stockholder Objective (Pure Discount Bond; F)

$$I^F = \text{arg max}_I -I + E \{ \text{Max} (f(I) w - F, 0) \}$$

Optimality Condition: $f'(I^F) = \frac{2(h+l)}{h^2 - \frac{F^2}{[f(I^F)]^2}}$

Thus, $I^F < I^e$ [UNDERINVESTMENT]

Illustration: Square Root Technology: $f(I) = \sqrt{I}$; $h=10, l=5$

Unlevered: $f'(I^e) = \frac{1}{2\sqrt{I}} = \frac{2(h+l)}{h^2}$; $I^e = \frac{h^4}{16(h+l)^2} = 2.7$

| F | I ^F | F | I ^F |
|---|------------------------|---|----------------|
| 0 | 2.777 = I ^e | 3 | 2.588 |
| 1 | 2.758 | 4 | 2.423 |
| 2 | 2.696 | 5 | 2.176 |