Chapter 16: Financial Distress, Managerial Incentives, and Information

I. Basic Ideas

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2.

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3.

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4.

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II. The Costs of Bankruptcy and Financial Distress

Note: In perfect markets, bankruptcy does not affect capital structure decisions

Reason: creditors simply take control of the firm

=> no loss of value
=> no cost

=> need to look at cash flows that go to someone besides stockholders and creditors in bankruptcy

A. Direct Costs of Bankruptcy

Direct costs:

Primary source of costs:

Ex.

Results of studies of average cost as a percent of pre-bankruptcy value:

=> *many of costs fixed*

B. Indirect Costs of Financial Distress

Indirect costs:

Notes:

1)

2) difficult to measure

Examples - loss of:

Results of studies of indirect financial distress costs:

C. Expected Financial Distress Costs

Expected Financial Distress Costs = probability of distress x financial distress costs
=> E(FDC) = p x FDC

Notes:

1) p = probability of financial distress
2) FDC = financial distress costs
3) Probability of distress increases with:

   a)

   b)

4)

III. Agency and Debt

Agency: conflicts of interest within the firm

=> *conflicts primarily stem from an unequal sharing of the costs and benefits of some action*

A. Stockholder-Bondholder Conflict and the Agency Cost of Debt

Note: all of the following issues are more significant if the firm is in financial distress

1. Excessive Risk Taking

   Basic idea:

   Reasons:

   1) Bondholder claim:

      => downside risk:
      => upside risk:

   2) Stockholder claim:

      => upside risk:

      => downside risk:

      => *net result: stockholders prefer high risk while bondholders prefer low risk*

   Ex. Assume two projects cost $100 each. Assume also that there is a 50% chance that Project #1 will pay off $120 immediately and a 50% chance that Project #1 will pay off $90 immediately. Finally, assume that there is a 50% chance that Project #2 will pay off $121 immediately and a 50% chance that Project #2 will pay off $0.

   Q: Which is the better project for stockholders if no debt?
   Q: Which is the better project for stockholders if firm owes $100 to bondholders?

	Project 1			**Project 2**			**Difference**		
	Good	Poor	Expected	Good	Poor	Expected	Good	Poor	Expected
Finance with Stock									
Payoff to stockholders									
Financed with debt and equity									
Payoff to bondholders									
Payoff to stockholders									

2. Under-investment in positive NPV projects

Basic idea:

Notes:

1)

=> *bondholders paid first*

=>

2)

=> *will be hard to do since default already likely*

Ex. Assume a firm has no cash but existing assets that have a 50% chance of paying $120 and a 50% chance of paying $80. A project costing $10 will provide an immediate risk-free payoff of $20.

Q: Will stockholders provide funding so project can be accepted if no debt?
Q: Will stockholders provide funding so project can be accepted if firm owes $130 to bondholders?
Q: Will bondholders provide funding for the project?

		Without			**With**			**Difference**		
		Good	Poor	Expected	Good	Poor	Expected	Good	Poor	Expected
Firm financed with stock										
	Payoff to stockholders									
	Profit/loss to stockholders									
Firm financed with debt and equity										
	Payoff to bondholders									
	Payoff to stockholders									
	Profit/loss to stockholders									
Bondholders provide $9 of financing										
	Payoff to bondholders									
	Profit/loss to bondholders									
	Payoff to stockholders									
	Profit/loss to stockholders									

3. Cashing Out

Basic idea:

Reason:

=>

=>

Q: Why would bond prices tend to drop when the firm pays out cash to stockholders?

Ex. Assume a firm owes $150 to bondholders and has $10 of cash and assets that will pay $120 or $150 next year. The payout next year will thus equal $130 or $160.

Q: How does the payment of a $10 dividend today affect the firm's stockholders?

4. Agency Costs, Covenants, and Debt

Debt covenant: agreement in debt contract that places restrictions on the firm

Role of debt covenants:

Q: Why would stockholders want to protect bondholders against these problems?

Benefit of covenants:

Cost of covenants:

B. Stockholder-Manager Conflict and the Agency Benefit of Debt

Key idea: the interests of managers and owners may not be the same

1. Ownership and the Sharing of Benefits and Costs

a. Basic ideas

1) if the manager is also the owner, the goal of the manager and the goal of the owner is the same
=> same person!

2) if the manager doesn't own all of the firm's stock, there is a potential conflict between the owner and the manager if there is an unequal sharing of the costs and benefits
=> almost always the case

b. Types of conflict between owners and managers

Key => think about what is optimal for managers and stockholders

1) Management Effort:
Q: Who bears the cost of management effort?
Q: Who gets the benefit of management effort?
Q: Will managers want to expend more or less effort than is optimal for stockholders?

2) Pay and Perks:

Q: Who bears the cost of management pay and perks?
Q: Who gets the benefit of management pay and perks?
Q: Will managers want more or less pay and perks than is optimal for stockholders?

3) Firm diversification:

Q: How does company-specific risk impact stockholders?

Q: How does company-specific risk impact managers?

Q: How does diversification of the firm impact stockholders and managers?

Stockholder:
Managers:

=>

Note:

4) Empire building:

Q: How does the size of the firm impact stockholders?
Q: How does the size of the firm impact managers?

=>

Q: Will managers want a larger firm than stockholders?

Note:

Free cash flow:

2. Debt and owner-manager conflict

1)

Why important?

2)

=> *issue debt and repurchase equity*

a)

b)

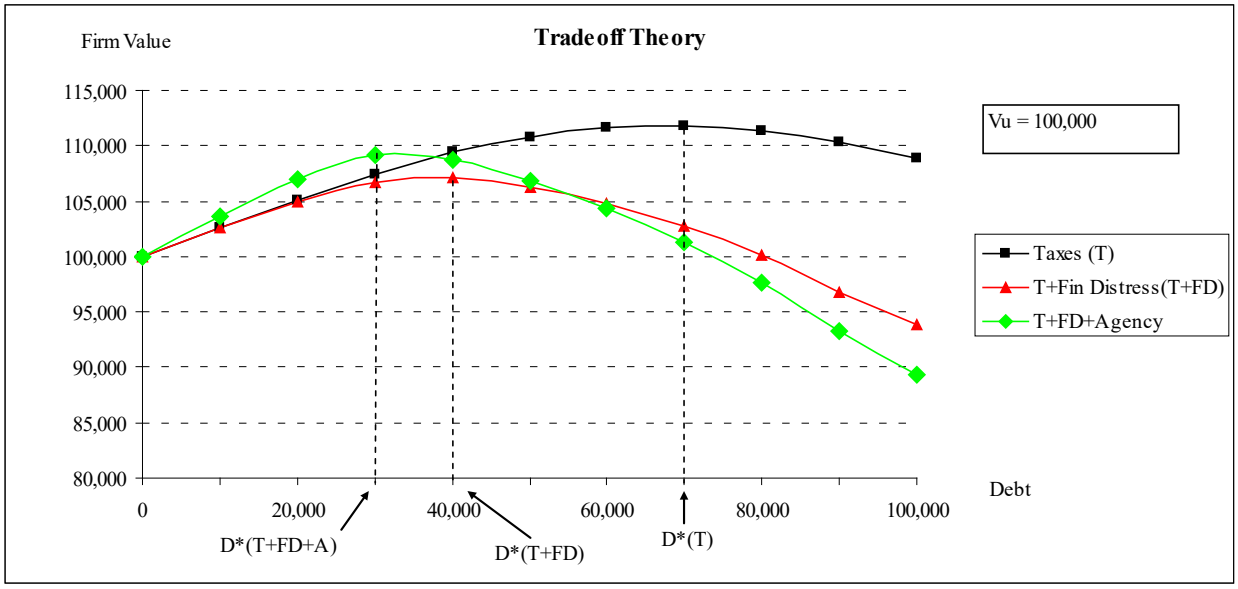
c)

Notes:

1) debt may weaken firm so less able to respond to competition
2) management may resist debt because don't like the discipline and reduced job security

IV. The Tradeoff Theory

$V^L = V^U$ + PV(Interest Tax Shield) – PV(Financial Distress Costs)
– PV(Agency Costs of Debt) + PV(Agency Benefits of Debt) (16.3)
=> optimal debt maximizes firm value



V. Asymmetric Information and Capital Structure

Basic idea: management generally knows more about the firm than outside investors

A. Leverage as a Credible Signal

Basic idea:

=> signal is credible since costly to send false signal

Q: Why is debt a credible signal?

=>

B. Adverse Selection

1. Key ideas:

1) sellers typically know more than buyers about the quality of an item.
2) at any given price, those who have low quality goods will be more eager to sell

2. Results:

1) products available for sale are likely below average quality
2) buyers will demand a discount when buying

Note: 1) and 2) feed off each other

3. Implications for Equity Issuance

1)

=>

Note:

2)