Advanced Financial Economics 2
– Financial Contracting –

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– Part 1 –

Reading 'List'

- Tirole, Jean "The Theory of Corporate Finance", Princeton University Press, 2006.
- Additional readings might be pointed out during the lecture.

Overview

The main building blocks of the course

1. Introduction
2. Corporate financing
   - Debt-equity ratio
   - Debt overhang
   - Borrowing capacity
   - Signaling in corporate finance

The main building blocks of the course

3. The role of monitoring in corporate finance
   - Market monitoring
   - Shareholder concentration
   - Relationship lending
4. Security design

Introduction

Purpose of this section

- Introduce basic terms
- Motivate the workhorse model

Starting point

Theorem (Modigliani-Miller Theorem)

In a world with perfect capital markets firms' financial structure and dividend policy is irrelevant for firms' value

- Moral hazard at various stages of the corporate decision process gives rise to agency conflicts
- Agency conflicts between managers and owners
- Agency conflicts between different corporate claim holders
- Ability to contain agency conflicts affects firms' returns and value

Heart of the problem

- Due to 1) high capital intensity of today's production processes, 2) the need to diversify investments, and 3) the efficiency gains from a division of labor, managing owners of firms become rare
- Owners of firms typically delegate the daily corporate decision making to managers
- Owners do not dispose of all information relevant for the decision making
- Managers must receive discretion
- Managers can use discretion to follow their own agenda - act in their own interest instead of the owners' interest

Forms of moral hazard

- Insufficient effort
  - Reluctant to take unpleasant decisions: cut costs by tough wage negotiation, switching suppliers, reduce workforce etc.
  - Insufficient effort in oversight of subordinates
- Entrenchment strategies
  - Choose opaque investments with high demand on managers specific human capital
  - Creative accounting to cover bad performance
  - Gambling for resurrection in case of deteriorating performance

Forms of moral hazard

- Self-dealing
  - Consume perks
  - Choose costly suppliers from private network
  - Engage in insider trading
- Extravagant investments
  - Invest in pet projects and empire building

$\Rightarrow$ Moral hazard either reduces firms expected profits or inefficiently increases riskiness of profit

Ways to contain the moral hazard problem

1. Implicit incentives: Threat of job loss provide incentives for managers to act in owners' interest (Takeover, bankruptcy)
   $\rightarrow$ Often considered insufficient
2. Monitoring: Owners can invest in monitoring to overcome informational asymmetries and prevent moral hazard
   $\rightarrow$ Monitoring not worthwhile for small investors (a role for financial intermediaries)
3. Explicit incentives: Owners provide compensation schemes in order to align managers' incentives to owners' interests
   $\rightarrow$ This is costly and absorbs part of a projects NPV

Monetary incentives

- Compensation packages include stock-based incentive schemes: **Stocks and stock options**
- Only align interests if managers cannot undo incentives by selling off these securities

→ Compensation agreement include minimum holding period

- Secret trading in equity swaps used to undo incentives
- Stock prices volatile due to exogenous factors impairs incentive effect

Monetary incentives

- Compensation packages also include **boni** as an accounting data based performance measure
- Accounting leaves discretion to intertemporally shift profits; boni generate incentives for manipulation

$\rightarrow$ Incentive effect undermined and transparency of accounting data corrupted

Implicit incentives

- Manager wants to secure his job
- Poor performance leads to bankruptcy and job loss

→ Product market competition reduces monopoly rents; higher risk of bankruptcy incentivizes managers

- Boards fire managers in case of poor performance or simply interfere with managers strategy
- Poorly performing firms are taken over and management is dismissed

→ Passive monitoring (in the sense of analysts' firm valuation) disciplines the management because it affects stock prices and takeover risk

Debt as governance mechanism

- Higher debt to equity ratio increases bankruptcy risk and keeps managers on their toes to prevent it
- Cash-flow absorbed to repay debt; free cash-flow cannot be misused for pet projects and managerial consumption
- But (short-term) debt also puts firms' liquidity and ability to finance ongoing projects at risk
- Bankruptcy generates costs:
  - Direct legal and other expenses
  - Bankruptcy threat induces gambling for resurrection
  - Too conservative strategy while debt holders are in control

Board of directors

- Idea of the board: Monitor important strategic management decisions and intervene if necessary in interest of owners
- Problem: Trade-off between competency and independency
  - Competent decisions of the board require specific knowledge that only insiders might have
  - Insiders lack independency from (former) colleagues and might be forced to assess results of their own (former) decisions
- Board members should receive performance dependent compensation which they usually don't receive in practice

Role of market monitoring and takeover threats

- Market analysts monitor decisions of management and assess the impact on firm value
- Even though they do not interfere with management decision their assessment is reflected in stock prices

1. A lower stock price makes a takeover cheaper

→ Takeover usually leads to job loss of current management

2. If stock prices are more sensitive to management performance explicit incentive schemes (stocks, stock options) become more efficient

- Market monitoring ensures that prices reflect firm value and that bad management is punished

Implicit and explicit incentives

- There is a substitutive relation between implicit and explicit incentive schemes for managers
- Implicit incentives mostly insufficient and need to be augmented by explicit incentives
- Explicit incentives costly

$\Rightarrow$ Active monitoring and intervention important additional instrument

Investor activism

- Investors can invest themselves in monitoring and intervene in strategic decisions
- Monitoring only prevents moral hazard if connected with control rights
- Large shareholder owning majority of voting rights can exert control and overcome moral hazard
- In *proxy fights* minority shareholders build coalitions to gain majority of voting rights and exert control
- However, efficiency of proxy fight impaired by communication costs, minority shareholders' own agendas etc.
- Concentration of ownership important for efficient control

Monitoring costs

- Monitoring and exerting control costly
- Active monitoring of one owner has positive externalities for other owners
- Monitoring has a public goods character $\Rightarrow$ free rider problem
- Concentration of ownership also contains free rider problem
- Financial institutions as major shareholder also economize on monitoring costs

Monitoring the monitor

- Having financial institutions (or other firms) as major shareholder only shifts problem
- Agency problem arises between owners and managers of the financial institution
- Given that financial institution are opaque and have by construction dispersed ownership, problem even more severe for managers of financial institutions
- In general, a blockholder might have different interests then minority shareholders and use his informational advantage in his own interest

In sum

- All means to contain moral hazard are imperfect and associated with some costs
- An optimal way of dealing with moral hazard is likely involving not only implicit incentives and monitoring but also explicit incentives