ECON 4245 Economics of the Firm

Lecturer: Tore Nilssen, office ES 1216, tore.nilssen@econ.uio.no
Seminars: Diderik Lund, office ES 1130, diderik.lund@econ.uio.no
13 lectures; 6 seminars (in two groups)

Lecture slides available before each lecture at:
http://www.uio.no/studier/emner/sv/oekonomi/ECON4245/h10/

Seminar topics – tentative plan

1. Introduction. Fixed-investment model.
2. More fixed-investment model. Variable-investment model.
3. Liquidity management.
4. Asymmetric information. Financing multiple projects.
5. More liquidity management. Monitoring.
6. More monitoring.

Each seminar group will be split in six subgroups.

- Group assignments after break of Lecture 2 (Fri 3 Sep).
- How to hand in and distribute solution proposals
  - Fri 3 Sep, 1415-1545, Aud 1 ES.

Contact student?

ECON4245 – Economics of the Firm Fall 2010

Department of Economics, University of Oslo

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Textbook: Tirole, *The Theory of Corporate Finance.* Princeton University Press, 2006.

Lectures: Thursdays 10:15-12:00, ES Aud 3.
Seminars: Tuesdays 12:15-14:00 GS Und.rom 2; Fridays 08:15-10:00 HH 301.

Lecure dates: Lectures start on 2 Sep. There is an *extra lecture* on Friday 3 Sep 12:15-14:00, ES Aud 3. There is no lecture on Thursday 7 Oct. So lecture dates are: 2 Sep*; 3 Sep*; 9 Sep; 16 Sep; 23 Sep; 30 Sep; 14 Oct; 21 Oct; 28 Oct; 4 Nov; 11 Nov; 18 Nov; 25 Nov.

Seminar dates: 14 and 17 Sep; 28 Sep and 1 Oct; 12 and 15 Oct; 26 and 29 Oct; 9 and 12 Nov; and 23 and 26 Nov.

Exam: 13 Dec at 14:30-17:30

Lecture plan

Theme 1. Introduction to corporate finance. Tirole, chs 1-2. [Lecture 1: 2 Sep]

Theme 2. Outside financing capacity. Tirole, ch 3, incl supplement. [Lecture 2: 3 Sep]

Theme 3. Determinants of borrowing capacity. Tirole, ch. 4, incl supplement. [Lectures 3-4:]

Theme 4. Multi-stage financing: liquidity management. Free cash flow. Tirole, ch 5. [Lectures 5-6]

(Lecture break after lecture 6.)

Theme 5. Asymmetric information. Tirole, ch 6. [Lecture 7]

Theme 6. Product markets. Earnings manipulations. Career concerns. Risk taking. Tirole, ch 7. [Lecture 8]

Theme 7. Monitoring. Investor activism. Tirole, chs 8-9. [Lectures 9-10]

Theme 8. Control rights. Corporate governance. Takeovers. Investor liquidity. Tirole, chs 10-12. [Lectures 11-13]

Theme 9. Summary of course. [Lecture 13].

- <u>Course topic: **the firm**</u>

- The firm has relationships with
    - Investors
    - Creditors
    - Suppliers
    - Employees (managers)

- Applying *economics* to understand these relationships
    - The economics of information
    - Contract theory
    - Three essential informational problems
        - Hidden action
        - Hidden information
        - Non-verifiable information

- At the centre stage: the firm/investor relationship
    - Corporate governance
    - Corporate finance
        - How are firms managed?
        - How are firms financed?
        - How do informational problems affect these questions?

Textbook: Jean Tirole, *The Theory of Corporate Finance*

- A unified treatment of the topic
- Building on a simple model
  - Hidden action (moral hazard)
- Required reading: chapters 1 through 12, including supplementary sections (unless noted otherwise).

Overview

- Basics: one-stage financing – fixed and variable investment models. Applications.
- Multistage financing: liquidity management
- Financing under asymmetric information.
- Exit and voice in corporate governance.
- Control rights.

(in the book, but not in the course:
macroeconomic implications of corporate finance;
political economy of corporate finance)

Corporate governance

- How *suppliers of finance* to a firm make sure they get returns on their investments.
  - Investors
  - Creditors
- How *corporate insiders* can credibly commit to returning funds to outside investors, thus attracting external finance
  - Insiders: management; current owners
- A narrow definition
  - Stakeholders vs shareholders
    - Employees, customers, suppliers, communities

The separation of ownership and control

- Berle and Means, *The Modern Corporation and Private Property* (1932).
  - Shareholder dispersion – managerial discretion
- Corporate insiders may not act in the interest of the providers of funds.
- How to deal with this problem?
  - Incentives
  - Monitoring

The moral-hazard problem

- Moral hazard is an awkward term but the one commonly used
  - No implication of immoral behavior
  - Behavioral risk; hidden action
- Owner/manager conflict
  - Manager does not always act in the interest of owners
- Insufficient effort
  - Insufficient internal control of subordinates
- Allocation of effort across tasks
  - Workforce reallocation, supplier switching
- Overinvestment
  - Pet projects, empire building, acquisitions
- Entrenchment
  - Managers making themselves indispensable
  - Manipulating performance measures
  - Being excessively conservative in good times, excessively risk-taking in bad times
  - Resisting takeovers
  - Lobbying against shareholder activism
- Self-dealing
  - Perks: private jets, big offices, etc.
  - Picking successor
  - Illegal activities: theft, insider trading, etc.

When corporate governance does not work

- Lack of transparency
  - Shareholders do not observe compensation details, such as perks and stock options

- Level of compensation
  - Tripling of average CEO compensation in the US 1980-1994, a further doubling until 2001.
  - Average CEO/worker compensation ratio in the US went from 42 in 1982 to 531 in 2000.
  - Proponents argue this is a byproduct of more perfomance-based pay.
  - Norway: average CEO/worker compensation ratio at 10 in 2005
    - Smaller companies than the US ones
    - Report by Randøy and Skalpe (2007)

- Fuzzy links between performance and compensation
  - Bebchuk and Fried, *Pay without Performance* (2004).
  - Compensation in an oil company based on stock price, when management has little control over the oil price.
  - Golden parachutes when leaving.

- Accounting manipulations
  - The Enron scandal.
  - Manipulating stock price, and therefore compensation.
  - Hiding bad outcomes and therefore protecting against takeovers.

Managerial incentives

- Monetary incentives
  - Compensation
    - Salary: fixed
    - Bonus: based on accounting data
    - Stock-based incentives: based on stock-market data
  - Bonuses vs. stock-holdings
    - Bonuses provide incentives for short-term behavior
    - Shares provide incentives for long-term behavior
    - The two are complements, not substitutes
  - The compensation base
    - Relative performance
  - Shares vs. stock options
    - Stock options provide stronger incentives
    - … but do not perform well after a downturn (excessive risk, lack of credibility).
  - Too low managerial incentives in practice?
    - In the US in the 1980s, the average CEO kept 3‰ of shareholder wealth; later estimate: 2.5%.
    - But incentives are costly to owners, because of manager risk aversion.

- Implicit incentives
  - Keeping the job
    - Firing or takeover following poor performance
    - Bankruptcy
  - Career concerns
  - Explicit vs implicit incentives
    - Substitutes: Strong implicit incentives lower the need for explicit incentives
    - … but this is difficult to trace empirically.

Managerial incentives, cont.

- Monitoring
  - Boards of directors
  - Auditors
  - Large shareholders
  - Large creditors
  - Stock brokers
  - Rating agencies
- Active monitoring
  - Interfering with management in order to increase the value of one's claims in the firm.
    - Linked to exercising control rights
  - Forward looking
  - Examples
    - large shareholder sitting on the board
    - resolutions at general assembly
    - takeover raid
    - creditor negotiations during financial distress
- Speculative monitoring
  - Not linked to control rights
  - Partly backward looking, aiming at *measuring* value, rather than at enhancing it.
  - Example: stock-market analysts, rating agencies
  - Provides incentives by making firm's stock value more informative about past performance.
- Product-market competition
  - Relative performance is easier
  - Exogenous shocks are filtered out
- The board of directors
  - Independence; attention; incentives; conflicts
  - Many differences across countries.

Investor activism

- Active monitoring requires control
- Formal control vs real control
  - Formal control: majority owner
  - Real control: minority owner convincing other owners of the need to oppose management
- Ownership structure important for the scope of investor activism
  - Institutional investors: pension funds, life insurers, mutual funds
  - Cross-shareholdings
    - Firms owning shares in each other
  - Ownership concentration: huge variations across countries
    - For example: US vs Italy
  - Ownership stability: again international variation
- Limits to active monitoring
  - Monitoring the monitor: incentive problems inside institutional investors
  - Externalities from monitoring
    - One shareholder's monitoring benefits all shareholders – underprovision of monitoring?
  - Costs of monitoring
    - Illiquidity
    - Focus by management on short-term news
    - Incentives for manipulating accounts

<u>The market for corporate control</u>

- Takeovers
  - Keep managers on their toes
  - Make managers act myopically
- Takeover bids: tender offer
- Takeover defenses
  - Corporate charter defenses
    - Making it technically difficult to acquire control
    - Staggered board
    - Supermajority rules
    - Differential voting rights
  - Diluting the raider's equity
    - Scorched-earth policies: selling out those parts of the firm that the raider wants
  - Poison pills
    - Current shareholders having special rights to purchase additional shares at a low price in case of a takeover attempt
  - White knight
    - An alternative acquirer who is friendly to the current management
  - Greenmail
    - Repurchases of stock from the raider, at a premium
    - Management colluding with the raider, at the expense of other owners.
- Leveraged buyout (LBO)
  - Going private, borrowing to finance the share purchase
  - Management buyout (MBO): an LBO by management

The role of debt in corporate governance

- Debt provides management discipline
  - Management must make sure there is cash flow available in the future for paying back debt
  - Management has less cash available for perks
  - If the firm does not pay back debt, creditors can force the firm into bankrupty
- Debtholders are more conservative then equityholders
  - Debtholders suffer from bad projects, but get no extra benefit from good projects.
- But there are limits to debt
  - Debt means the firm is less liquid, which is costly.
    - Internally generated funds are the cheapest source of capital available for firms.
  - Bankruptcy is costly.

International comparison

- Two broad legal traditions
  - Common law
    - Independent judges
    - Limited codification
    - US, UK
  - Civil law
    - Politically appointed judges
    - Codification
    - France, Germany, Scandinavia

- Differences across legal systems
  - Shareholders have more protection in common law countries
  - Correspondingly, common-law countries have a higher ratio of external capital to GDP.
  - Common-law countries have a more dispersed ownership of firms.

Note: Supplementary section to Tirole's ch. 1 is *not* required reading.