EC951 Economics of Organizational Management: Introduction (2011-2012)

[Class: please think of a funny cartoon now that seems vaguely relevant to the course]

Me

- Dr. David Reinstein, drein@essex.ac.uk, (01206) 87 3518
- I do applied micro work (simple models, cite theory, intuition, econometrics, experiments, too many graphs and tables)
- I'm in the basement (3.204)
- Office hours: Thursday 2:30-3:30, Friday 12:30-1:30

The Course

- Lectures, class participation
- Textbooks (esp. Laffont and Martimort), articles (esp. on theories of the firm), course notes
  - Optional texts: Salanie (more mathematically general and rigorous); Milgrom and Roberts (example-based, applied)
- A Final Exam (not too different then previous years)
- A Term Paper (Required)
  - Suggested Topics
  - Encouraged to choose your own (if not "core" course material)
- Maths: Largely algebraic, some calculus, optimization, and "intuitional" and semi-formal proofs

Suggestions:

- Read the texts/articles, do the exercises $\Rightarrow$ you will do fine.
- Reading before lecture is helpful; bring questions. Print out and bring the lecture notes.
- Discussion in lecture is welcome.
- Please, please, let me know if I am confusing or too fast in lecture: the Emperor may wear no clothes
  - You can slip an anonymous (polite) note under my door if you like
- **Warning:** The notes may (will) contain errors; please let me know if you spot any and I will send an email correction to all students. The textbook(s) will contain fewer errors.

What this course is *not* about

- How to actually manage an organization
- How to make money
- How to win friends and influence people

Fact

This course may give you some insight into such things

- *...(But don't put a downpayment on that yacht just yet)*

What this course *is* about

- Interactions Between Small Numbers of 'agents'
  - Unlike in much standard game theory, they can (usually) design enforceable contracts
- Relates to Market Failure – Failure of the First Welfare Theorem (and the 2nd) and "Suggested Remedies"
- Interactions with Asymmetric Information:
  - "Moral hazard" (imperfect information about actions) and "Adverse selection" (imperfect information about "types" or states of the world)
  - Complicated by risk aversion, limited liability, etc
- Contracts and Incentives; Incomplete Contracts
- The Theory of Ownership and the Firm
- Economic Modeling
- Evidence for these Models, Applications and extensions
  - Side topic: Empirical Evidence on Economic Models
  - We will discuss "the financial crisis"
  - Non-material concerns (psychological, behavioural, altruistic)

An Overview (From Salanie, Laffont and Martimort, etc.)

GE Theory

- Prices only, 'nonatomic agents,' no market power
- For private goods, competitive markets can lead to 'yardstick competition' which leads to efficiency
- Welfare Theorems
  - Can generalize these to deal with symmetric uncertainty, time, and externalities, as long as we can set up the appropriate markets
  - Not easily generalized to asymmetric information!
  - There are incentives to manipulate, to extract 'information rents'
  - Can only 'recover' welfare theorems under complicated mechanisms and strong assumptions!
  - 2nd welfare theorem only applies if the government can make frictionless lump-sum transfers – there are many reasons why this is infeasible, even if the government knew people's endowments and preferences

And why do firms exist?

Problem

If the price mechanism works, why do we have all these institutions that 'supercede it'?

Coase (1937): "The distinguishing mark of the firm is the supression of the price mechanism"

Applications and Markets that may be incomplete; mutually beneficial transactions do not occur...

- Insurance markets
- Hiring an 'agent' (reale estate, hot dogs, etc)
- Markets for Used Cars (Akerlof, 1970)
- Public goods and social planning ('Groves' mechanisms)
- Joint investment decisions
- Natural Monopolies and Regulation (want mc pricing but cost unobserved – rate of return, cost plus, Ramsey pricing, benchmarks...)
- Redistributing income/utility through tax system (may want to maximize 'ex-ante' utility)
- Second degree price discrimination (menu of prices and quantities/qualities)
- Auctions as a mechanism

As policymakers and managers, we are interested in these problems themselves and how to improve things.

Theory of Contracts and Incentives

- Partial equilibrium (1-2 goods)
- Small number of actors (usually 2 or 3)
- *Assumption*: The contract is guaranteed, can be verified and enforced
- Fundamentals: Relies on noncooperative game theory: 'Bayesian' behaviour[1] and the Perfect Bayesian Equilibrium concept
- A major theme: trade-off between allocative efficiency and the distribution of information rents.
- We assume principal sets the contract; we abstract away from bargaining issues.

Classes of Models

Private information over ...

1. **Actions**
   $\Longrightarrow$**"Moral Hazard"/Hidden action problem**
2. **Types** (or some 'state variable')
   $\Longrightarrow$**"Adverse selection" / Hidden information problem**
3. Or both (not covered here).
4. Also, **'Incomplete Contracting'**

Who takes the Action?

1. "**Adverse selection**": Uninformed moves first (sets contract), private information over type
2. **Signaling:** Informed moves first, private information over type (not a focus of this course but it will come up occasionally)
3. **Moral Hazard:** Uninformed moves first, private information over actions