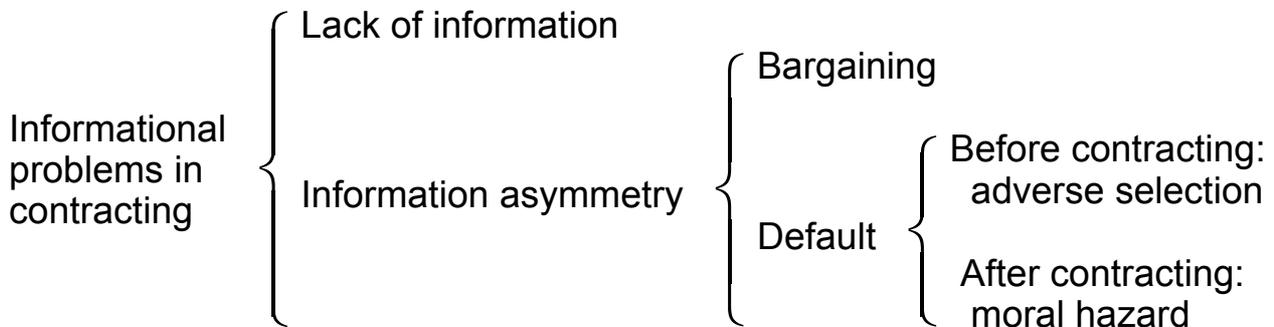


The Contractual Process

1. Information and types of contractual problems



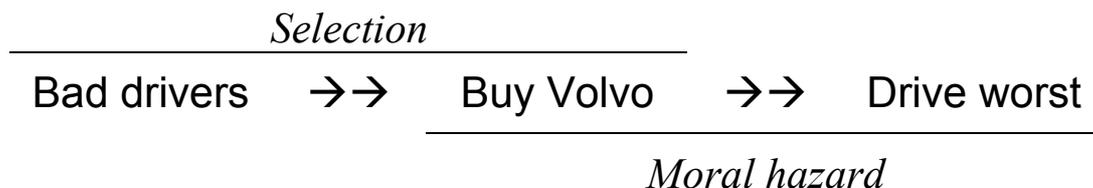
Asymmetry →

The fight for appropriating more gains from trade can prevent efficient transactions

Examples

- **Lack of info: finding suppliers → change w. Internet**
- **Bargaining: selling a house, finding a job (= selling human K)**
- **Adverse selection: car insurance, used cars, renting apartment**
- **Moral hazard: labor effort, renting apartment**
- **Adverse selection and moral hazard together:**

a) Why Volvos stop less often in red lights?



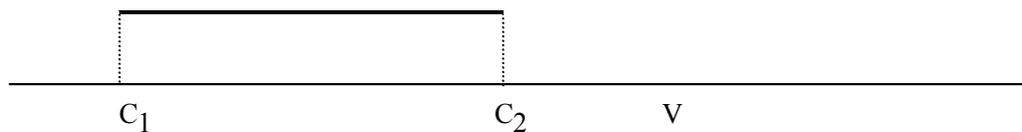
b) Why do integrated dealers perform worst?

Bargaining

Assumptions: information structure, bargaining power or rules

Information:

- Buyer knows his value, V
- Buyer knows seller's cost is uniformly distributed between C_1 and C_2 :



Bargaining rules: buyer offers, seller accepts / rejects, no counteroffer

Buyer problem: find p that maximizes his profits.

If $p \geq C_2$, seller accepts offer, with profit $B > 0$

If $p < C_2$, two possibilities:

- Seller accepts offer \rightarrow profit $B > 0$, higher than if $p \geq C_2$
- Seller rejects \rightarrow profit $B = 0$

Optimal p may cause no trade despite trade always efficient ($C_2 < V$)

Optimum offer by buyer

- $B = [\text{Probability that seller accepts}] * [\text{profit margin}] =$

$$B = P(C < p) * (V - p)$$

- Uniform distribution of costs b/w C_1 & $C_2 \rightarrow$ for all p such as $C_1 < p < C_2$,

$$B = [(p - C_1) / (C_2 - C_1)] * (V - p)$$

$$B' = 0 \rightarrow \boxed{p^* = (V + C_1) / 2}$$

Lessons

Distribution → Efficiency

Implicit nature of cost: lost of trade opportunities

How to reduce the extent of the problem

Allocation of rights to the informed party

Production & transfer of information:

- Haggling
- VW-Exel in Martorell factory: open cost accounting

Behavioral assumptions:

- homo economicus
- homo sapiens:

Adverse selection

Example: Selling insurance policies to this population:

Drivers	Expected accident cost
Bad	185
Medium	95
Good	20
Average	100

Same price → market for good risks may disappear

Different prices

Identifying types: history, region, car, etc.

Offering price structure that triggers “separation”: franchise in insurance policies → good drivers will take franchise

Aggregation of risks

Signaling

Requirements: profitable for good risks, unprofitable for bad risks

Example: higher education

Examples

Used cars (“The Lemons Problem”): visit Carmax at <http://www.carmax.com/>

Genetic tests in health insurance

The role of contractual intermediaries

Examples

Real estate agency b/w seller and buyer

Coordination: listings, matching

Bargaining: advise on pricing and counter-offering

Adverse selection: control

Moral hazard: payment, contracting

Banking b/w lender and borrower (Benston & Smith paper)

Coordination:

Bargaining:

Adverse selection:

Moral hazard:

Market failure → business opportunity for intermediation

Example: Carmax above

Intermediation changes the contractual problem, does not eliminate it

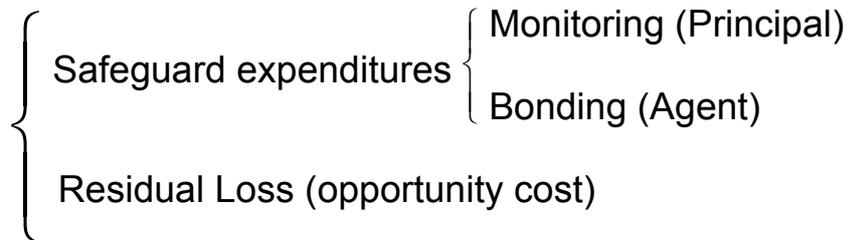
Intermediation → more numerous & complex contractual problems

Example: How to pay the real estate agent: commission to motivate effort does not motivate enough and then do play for the buyer

2. The structure of contracting in terms of agency

An abstraction of contractual relations: Agency relations

Agency costs (Jensen and Meckling, 1976):



Analysis of agency costs

Who pays them \neq Who incurs them

Unavoidable \rightarrow “Nirvana” fallacy

Substitution among them \rightarrow contractual technology \rightarrow innovation

3. Elements of the contractual process

Two basic tasks

- *Completion* → defining the contents of the exchange
- *Enforcement* → ensuring that parties perform as they've agreed

Timing: two moments

- **Ex ante:** commitment on exchange and safeguards
- **Ex post:** exchange—i.e., fulfillment of promises

Active participants

- **Parties:** unilateral (one party) or multilateral (several parties)
- **External or “Institutional”:** market & law →
 - Exchanges take place in an institutional environment, *in the shadow of*
 - *the market and*
 - *the law*

A map of contractual solutions

		INDIVIDUAL SOLUTIONS (developed by the parties)		INSTITUTIONAL SOLUTIONS (relying on third parties)	
		Unilateral	Multilateral	Generalist & decentralized	Specialized & centralized
EX ANTE	COMPLETION	EXPLICIT CONTRACTING		NORMS & RULES	
		Contracts drawn up by one party (standard form contract)	Explicit contracts negotiated by both parties (joint contracts)	Usage and custom	Common Law Codified Law Statutory Law
EX POST	COMPLETION	RELATIONAL CONTRACTING		JUDGEMENT BY THIRD PARTIES	
		Authority (e.g. employment, franchise contracts)	Decision-making rules and bodies	Performance evaluation by other market participants	Litigation and judicial judgments
	ENFORCEMENT	INTERNAL SANCTIONS		EXTERNAL SANCTIONS	
Moral sanction by defaulting party		Retaliation by cheated party: cutting relations; etc.	Loss of reputation in market; ostracism	Damage payments; criminal punishments	
		PRIVATE SOLUTIONS			PUBLIC SOLUTIONS

NOTE: There exist multiple possibilities of developing the contractual process, not only along the phases represented in each column. Mainly, all particular solutions are to some extent under the supervision of institutional solutions.

4. Analysis of the contractual process

Ex ante completion

By parties

- a) costs of explicit contracting
 - information
 - opportunism
- b) Role of explicit contracting

Institutional

- a) Usage and custom → common law, codified law
- b) Statutory law, with two conflicting rationales:
 - Default or enabling rules: law as standard contract
 - Mandatory rules
 - Normative view:
 - To improve individual rationality (e.g., workplace safety regulation)
 - To avoid external effects ('commercial' market failures—e.g., pollution)
 - Positive view: To redistribute wealth (failures in the political market)
 - Explicit retroactivity (e.g., devaluation Argentina 2002)
 - Implicit retroactivity (granting of 'rights'—e.g., parental leave of absence)

Ex post completion & enforcement

Private (relational contracts)

Unilateral, asymmetric: standard contracts, insurance, franchising, employment

Bilateral: joint ventures

Multilateral: corporations

Institutional

Markets

- *Decentralized* judicial processes
- Potential for abuse of reputational guarantees: Are big firms really strong?
- The role of specialists: financial auditors, credit rating bureaus, quality certifiers, etc

Judges

- Fill the holes in the contract, interpreting it according to the law: ‘contract integration’
- Counterfactual hypothesis to fill the gaps in the contract and solve conflicts on a given contingency:
 - Which clause would have the parties introduced if they had thought *ex-ante* on that contingency? → Efficient outcomes

5. The institutional support of exchange

Subject to standard tradeoff of specialization advantages and transaction costs:

Advantages from specialization in completion & enforcement

Laws

- Use of the previous contracts as deposit of knowledge deposit (learning economies)
- Default law: Economies of scale for a good standard contract
- Jurisprudence: development of law in relevant cases, adaptation to new circumstances

Judges

- Impartiality → can use efficiently information available *ex post*:
- Possibility of litigation favors compliance → impossible to see how important

Transaction costs from specialization in completion & enforcement

Similar to contractual intermediation: reduces total transaction costs by introducing new interactions with new transaction costs

Parties opportunism

- In lawmaking: retroactive rules with redistribution effects
- In litigation of contract agreed as relational or internal

Inefficient judicial decisions

- Courts' congestion
- Unpredictable rulings
- "Justice" of particular cases damages future contracting
- Bias against self-enforcement solutions
 - Bad when behavior not verifiable by judge

Most damage to future contracts → hard to see

6. “Internal” safeguards or “self-enforcement”

The role of repetition

a) Prisoners’ dilemma

b) Criminal options

c) Importance of repetition and expectations. An example:

One period:

	does not cooperate	cooperate
does not cooperate	1.000 1.000	0 3.000
Cooperate	0 3.000	2.000 2.000

Infinite periods with “tit fir tat” strategy [1st, cooperate; 2nd, reciprocate (with p = probability of contracting next period)]:

	never cooperate	tit for tat
never cooperate	$\frac{1.000}{1-p}$ $\frac{1.000}{1-p}$	$\frac{1.000}{1-p} - 1.000$ $\frac{1.000}{1-p} + 2.000$
tit for tat	$\frac{1.000}{1-p} + 2.000$ $\frac{1.000}{1-p} - 1.000$	$\frac{2.000}{1-p}$ $\frac{2.000}{1-p}$

Crucial:

- initial expectations → management of new recruits
- mistakes in assessing the behavior of the other party → “Contrite tit for tat” is like tit for tat but accepts two selfish acts before retaliating. Does not work if players do not know they have made a mistake. → “Generous tit for tat” forgives a certain proportion of cheatings, that increases with the probability of mistakes. → Optimum degree of generosity trade offs the risks of being too soft on cheaters and too tough on potential cooperators.

7. The interaction between internal and external enforcement—cases

Corte Ingles' money back guarantee

Functioning

Court ruling

Revision of contracts by large distributors

Asymmetric structure of contracts

Court rulings

EU regulations

Completion of distribution contracts by car manufacturers

Asymmetric structure of contracts

Regulations on payment delays

Japanese “permanent” employees versus European-style guaranteed employment contracts