INSTITUTIONS AND INSTITUTIONAL DESIGN

Erling Berge

Part VI: Transactions, measurements and information

NTNU, Trondheim
Fall 2004

Fall 2004 © Erling Berge 2004 1

Literature

- Williamson, Oliver E. 1996 “The Mechanisms of Governance”, New York, Oxford University Press, Ch 3 **Transaction Costs Economics**, pp54-87
- North, Douglass C. 1990 “**Institutions, Institutional Change and Economic Performance**”, Cambridge, Cambridge University Press,
- Eggertsson, Thráinn 1990 “Economic Behaviour and Institutions”, Cambridge, Cambridge University Press

Fall 2004 © Erling Berge 2004 2

The neo-classical assumptions

NIE preserves the “core” of the economics research paradigm by insisting on

- Stable preferences
- Rational choice, and
- Equilibriums

Core question: why are there so many forms of organisation?

- The core problem of economic organisations is economizing.
- Behavioural assumptions
  - o Contracting man (limited to the set of feasible contracts)
  - o Bounded rationality (intendedly rational, but only limitedly so)
  - o Cognitive competence is limited
  - o Self-interest seeking with guile (i.e. in disclosure of information); opportunism, moral hazard, agency problems

Implications

- Incomplete contracting (feasible contract) is the consequence of bounded rationality and opportunism*
- Contract as promise implies risk of breaking it
- Central (state) governance versus private ordering (legal rules for everything versus contract as framework for resolving disputes)

Operationalization of transaction costs

- Technology of transacting
  - Comparing costs of planning, adapting, and monitoring task completion under alternative governance structures
- Main dimensions of transactions
  - Frequency of occurrence
  - Degree and type of uncertainty
  - Asset specificity/ sunk costs (can asset be used in alternative schemes?)

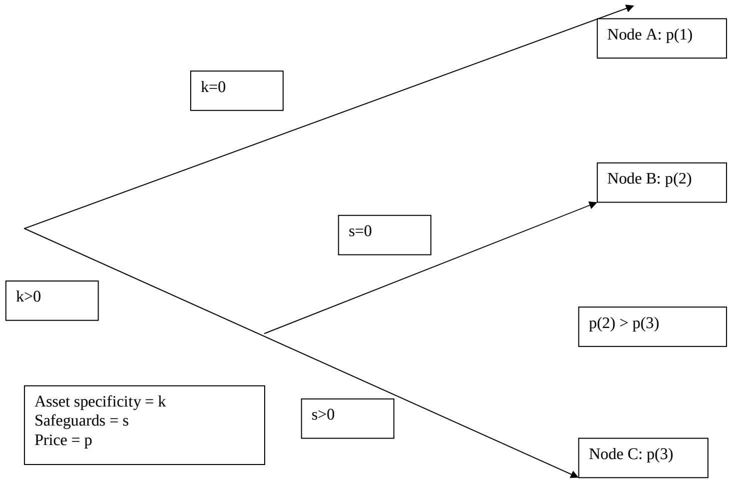
Asset specificity

- Asset specificity takes many forms:
  - one is personal knowledge (the problem of unique or imperfectly standardized goods)
- Implies complex ex ante incentive responses as well as ex post governance structure responses
- Six types:
    - Site specificity (e.g. chains of production, logistics)
    - Physical asset specificity (e.g. sunk cost in equipment)
    - Human asset specificity (e.g. on the job training, learning by doing)
    - Dedicated assets (customer specific investment)
    - Brand name capital
    - Temporal specificity

Uncertainty

- Statistical risks (random acts of nature, unpredictable shifts in consumer's preferences)
- Idiosyncratic trading hazards (lack of communication, strategic non-disclosure, distortions)
- The fundamental transformation
  - Asset specific products implies that market competition becomes distorted. After a first round of large number bidding, the identity of contractors will matter. Specialised investments by the supplier cannot be redeployed to alternative uses, and a buyer will have to induce alternative suppliers to invest in specialised equipment.

A simple contracting scheme



A simple typology of contracts

- Competitive markets
  - (1) Suppliers with general purpose technology, no protective governance, price P1
- Bilateral trade
  - (2) Suppliers with specialised technology, no protective governance, price P2
  - (3) Suppliers with special purpose technology, protective governance, price P3 (p3 < P2)

The situation (2) will be unstable: either technology will change or safeguards will be developed.

The problem of measurement

- All measurement problems are rooted in either
  - 1) information asymmetries, or
  - 2) costliness of providing an arbiter with the true information condition in case of disputes between opportunistic parties with equal information
- Information problems with different origin give different organisational responses.

Vertical Integration

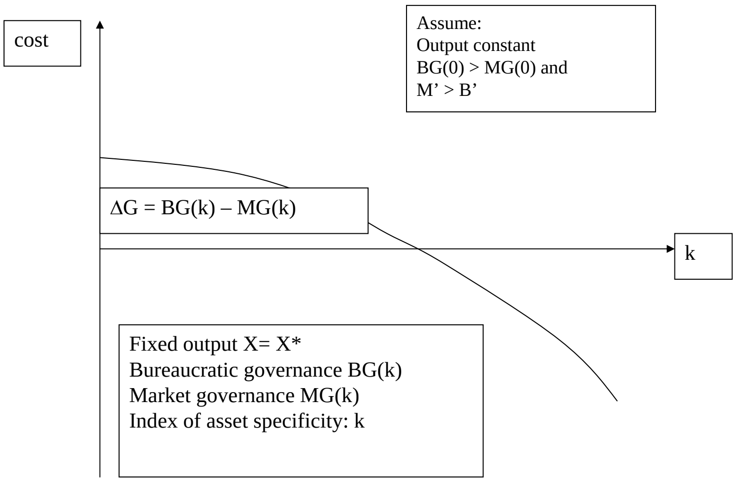
Market:

1. Promote high powered incentives and restrain bureaucratic distortions
2. Aggregate demand to take advantage of economies of scale and scope

Internal organisation

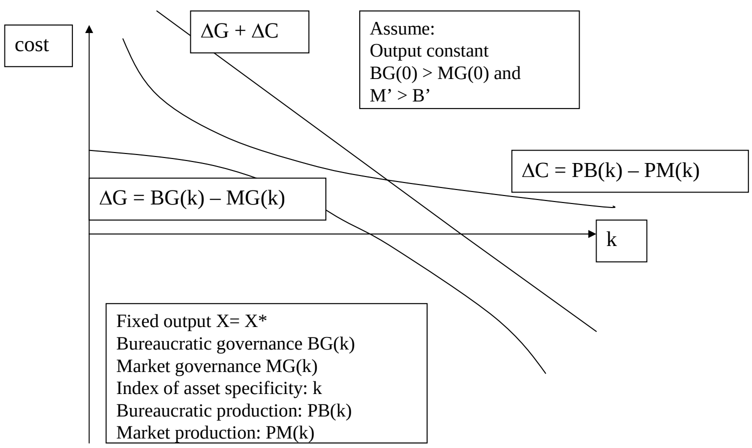
1. Access to distinctive governance instruments

A heuristic model



Fall 2004 © Erling Berge 2004 13

Production cost differences



Fall 2004 © Erling Berge 2004 14

Other Applications (1)

- Non-standard Commercial Contracting
  - The hostage model for developing credible commitments. These deal with intertemporal contracting, uncertainty and investment in transaction specific assets.
- Over-searching (a measurement problem)
  - Applied to diamond trading:

Other Applications (2)

- Economics of the Family
  - Family firms (incentives, monitoring, altruism, and loyalty)
  - Career marriages (manager married to the firm, cohabitation of two people).
- Corporate Finance (debt or equity financing? Depends on asset specificity)
- The Modern Corporation (development of line/ staff structure, selective vertical integration, multi-divisional corporations)

Public Policy Ramifications

- Regulation/ deregulation vs. monopoly supply (private unregulated, private regulated, government supply).
- Antitrust: the problem of vertical integration. Vertical integration is problematic only in highly concentrated industries where entry is impeded
- Stagflation: full flexibility of prices and wages will jeopardize contracts supported by durable investments in firm-specific assets.

Some conclusion from Williamson

- Future developments of “friction” studies:
  - 1) at least partly absorbed by “extended” neo-classical economics*
  - 2) process values such as fairness will more easily be incorporated,
  - 3) expansion to new phenomena,
  - 4) a better theory of bureaucracy is needed,
  - 5) more empirical studies are coming each year (original paper published in 1989)

Eggertsson 1990 Ch 6
More about the Firm: What is it?

- A set of long term contracts between input owners
- The firm replaces the product market with a factor market where price signals plays a minor role

But not in the unitary firm (the one-person firm) who
- – Discover and produce commodities with valuable dimensions related to form, location, and time
- – Is rewarded by profits

Resource owners: coalitions

Structure of contracts
- – Merchant-coordinator (the putting-out system)
- – Federated production mode (common locality)
- – Inside contracting mode (capitalist manages external relations and common facility only)
- – Hierarchical authority relations mode
- – Various forms of common ownership

Market costs are replaced by agency costs

Entrepreneurs and measurements

- With full information entrepreneurs are not needed
- The person whose contribution is most difficult to measure will assume the role of entrepreneur
- Information about entrepreneurial activities are asymmetrically distributed, giving rise to moral hazard problems best solved by the self-monitoring of the entrepreneur as residual claimant
- Shirking in coalitions solved by entrepreneur

Specific investments

- Specialised investments cannot be transferred to other uses without loss
- Quasi-rents: difference between current earnings and best alternative use of factor
- Unique resources (finding substitutes is impossible or very costly) may make it possible to expropriate quasi-rents.
- Asymmetric information, measurement costs and opportunistic behaviour puts specialised investments at risk

Protective measures

- Ownership of key interdependent assets. Strongly interdependent assets of a firm (except human capital) tend to be owned in common
- Long-term contracts designed to constrain the set of future options of input owners (contractual guaranties that quasi-rents will not be expropriated)

Competing forms of organisation

Environment:cost minimization in a laissez-faire economy

- – Economies of scale
- – Asymmetrical information, measurement costs, agency costs depending on contracts
- – Production dependent information distribution, monitoring and contract structure
- – Size, information and coordination costs
- – Assignment of risk bearing and residual claims
- – Firm-specific human capital

Types of organisations (1)

- Proprietorships: Owner-manager with horizon and diversification problems
- Partnerships: like proprietorships but less constrained by wealth, scale and risk, but with the problems of common ownership
- The closed corporation, non-manager-owners have close ties to manager-owners, limited liability lowers risk but it is still problematic, tendencies to under-investment

Types of organisations (2)

- The open corporation with limited liability and separation of owners (risk taker specialists) and mangers (management specialists) can maximize utility of owners and market value of firm
  - Agency costs between owners and managers, decision management and decision control
  - Coordination costs increase with size, changing from U-form to M-form

Types of organisations (3)

- Financial mutual: customers are residual claimants, claims redeemable at a pre-specified rule – a relatively efficient diffuse control mechanism provided assets are non-specific and can be liquidated at low cost
  - The interpretation of social clubs as a type of mutual sees their human capital as non-substitutable interdependent resources

Types of organisations (4)

- Non-profit private organisations producing merit goods donators want to see others consume more of. There are no residual claims. Agency problems between donors and mangers, alleviated by donor-presence on boards

Eggertsson 1990 Ch 7
The logic of economic organisation

- Assume laissez-faire economy
- The relative economic advantage of alternative contractual forms is rooted in transaction costs
- Problems
  – Measuring quality
  – Enforcing labour contracts
  – Contracts in agriculture
  – Money

Measurement of quality

- Search goods – quality by inspection
  – Variable qualities increase measurement costs
  – Relative cost distribution seller-buyer important
- Experience goods – quality by consumption
  – Sellers having little to gain by investing in reputation will not supply high quality exp.goods
  – Use of hostages (reputation, brand name, goodwill)
  – Investment in production specific human and physical capital
  – Use of warranties

Enforcing labour contracts

- Employment package (wage ++) and supply of labour are multidimensional (hours ++)

Ex: slavery –nonviable because of agency costs?

- The slave can buy his freedom by controlling his work effort
- Pain incentives (or prohibition of manumission) may make slaves more productive than freemen

Transaction costs reduce the advantage of slavery due to severe agency problems

Contracts in agriculture (1)

The open field system (OFS)

- Costs of scattered strips and communal regulations? High TC of rearranging property rights do not explain
- McClosky: scattering as insurance
- Dahlman: missing market in grazing rights
- Fenoaltea: labour market too costly (OFS = family farming with scale economies)

Contracts in agriculture (2)

Sharecropping

- Risk: born by landlord under fixed wage, by tenant under fixed rent, shared by sharecropping. This can also be achieved in a mixed contract of rent and wage
- Enforcement costs a key element in choice of contract form
- The cost of contracting determines the marginal changes in contract mix (various TC's)

The market for money (1)

- Money useful to economise on information
- System of exchange: institutional arrangement
  - Both direct and indirect flows
  - Indirect links – media of exchange – if also used for final payment = money
- Services supplied by the stock of money
  - Specialisation and costly information ⇨ need for M
  - Commodities with low marginal transaction costs, falling with use, structure of TC the same for all, buyers and sellers invest in uncertainty reduction and price reduction

The market for money (2)

Trust and brand name of money

- TC low if quality is easily measured and resale markets are stable
- The particular choice of a commodity for money is a social choice
- A durable good with a flow of services depending on future supply (trust)
- Token money as experience goods, requiring investment in brand name
- Appearance of fiat money not yet explained

The market for money (3)

Competition in supply

- Feasible if each brand is easily recognized, and suppliers and consumers agree on the potential gains from over-issuing

Choice of system of exchange

- Unstable regimes uses commodity money
- Stable regimes uses fiat money
- Information, Individuals and Networks important to exchanges
- Several exchange systems existing simultaneously