INSTITUTIONS AND INSTITUTIONAL DESIGN

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Part Vb: More on NIE
Ch 4 and 5 in Eggertsson 1990

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Fall 2004

Literature

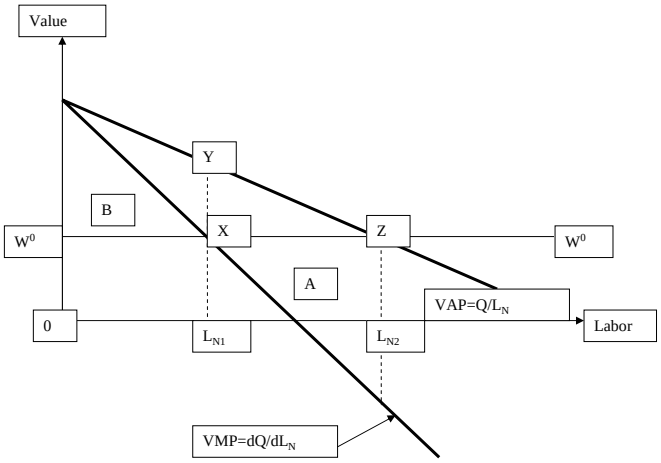
- Eggertsson, Thráinn 1990 “Economic Behaviour and Institutions”, Cambridge, Cambridge University Press

Eggertsson 1990 Ch 4
The economics of exclusive rights

- Common property
- Costs of assigning and enforcing property rights
- Conflicting uses and the role of transaction costs
- Restrictions on contracts and dissipation of nonexclusive income

Figure 4.1 The dissipation of rent (p86)

- Open access: fixed resource R^0



Notes to the previous figure

- W^0 = marginal opportunity cost
- L_{N1} = labour units employed by a single owner, maximizes rent =B
- L_{N2} = sum of labour units employed by all users of an open access resource, here rent=0, triangle A = B (rent dissipation)
- VMP= dQ/dL_N = value of marginal product
- VAP= Q/L_N = value of average product

Incomplete explanations in text:

- L_{N1} Y = output from one new labour unit , L_i , when L_{N1} are already used ?? (dL_{N1} Y)
- XY = fall in productivity of intramarginal units (L_i = 1)
- L_{N1} X = net increase in output from one L_i when L_{N1} are already used ?? (dL_{N1} X)
- L_{N2} - L_{N1} = net addition to output by extra labour units is less than in alternative occupations with wage W^0

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The costs of property rights

Privatising public resources in the USA

- Size limitations
- Investment requirements

– Ex: timberland in northwest USA

- Frontiersmen designed less wasteful processes for assigning property rights to natural resources than the federal government did at a later date

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Enforcement costs and ownership

- Repetitive and variable enforcement costs
- High enforcement costs may render exclusive ownership of a resource economically nonviable
- Ex. Fisheries: gear restrictions, which usually are thought of as inefficient methods of regulation (increases production costs) may be less costly to enforce than other measures, and could turn out to be the most efficient method of regulation when enforcement costs are taken into account.

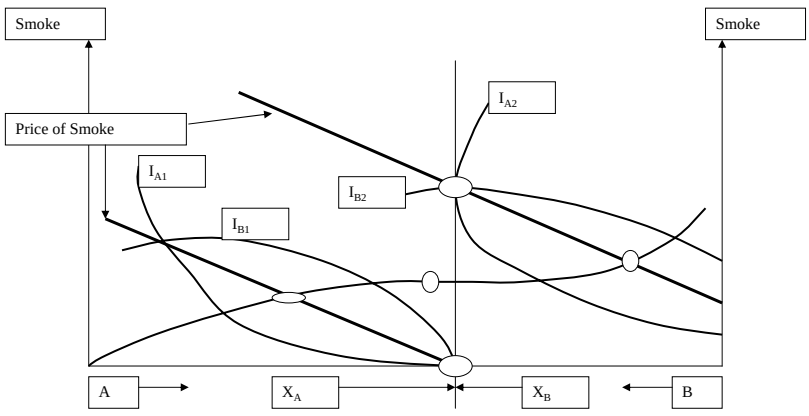
Privatisation effects

- Output per unit of input likely to increase
- Factor supplies in commodity production are reduced as resources are diverted to definition, acquisition and enforcement of exclusive rights
- Impact of changes in property rights on aggregate social welfare depends on the true nature of individual utility functions, which we do not know and cannot measure

Use conflicts

- Also under a regime of exclusive ownership, decision makers may fail to allow for costly or beneficial interactions – fail to internalise them – when the costs of transacting are high.
- Ex:
  - airspace vs. quiet: who holds the right to use the airspace? Airlines? Apartments?
  - smoke vs. quantity of the composite commodity X (fig 4.3)

Figure 4.3 The assignment of property rights and economic outcomes in an Edgeworth box (p106)



Comments to figure 4.3

- **High transaction costs will lead to "inefficient" equilibriums. But how is that possible in a rational choice model?**
- **If our model is misspecified – for example by omitting transaction costs – then the conclusion should be that given the current institutional structure, points S and F are indeed Pareto efficient. If transaction costs are higher than the gains of trade then it is inefficient to move form F to F^* or S to S^* . Institutional change may lower transaction costs allowing A and B to trade. Alternatively, the state may redefine the bundle of rights and place A and B directly on the contract curve, for example at Z. Assignment of rights to individuals also has a wealth effect, changing the endowments will alter valuations.**
- **In bargaining games about the price of smoke in terms of commodity X, the outcome is indeterminate within the boundaries of the indifference curves.**

Efficiency of legal systems

- Law is efficient if it guides resources to its most valued uses, and value is determined by the consumers willingness to pay.
- The cost to the state of changing law is often disregarded:
  - Allocate and enforcing exclusive rights
  - Introducing marketable individual quotas

Restrictions on contracts (1)

- Effective limits on contractual terms, such as price restrictions, do not cause dis-equilibrium but lead to a new equilibrium.
- Controls often give rise to new forms of organising exchange that supplement or replace the price mechanism

Restrictions on contracts (2)

- The new arrangements are likely to result in higher transaction costs than those incurred under allocation by price because they are chosen only when the price mechanism is suppressed.
- Control may lead to adjustment in the form of using or producing goods.

Restrictions on contracts (3)

- When limits are imposed on contracts, buyers and sellers have an incentive to make those adjustments that minimize the potential loss in value that the controls can cause, or in the words of Cheung (1974), minimize the dissipation of nonexclusive income.

Eggertsson 1990 Ch 5
The Ownership structure of firms and economic outcomes

Production function (Jensen and Meckling 1979)

$Q = F_R(L,K,M,C,T)$

L = Labour

K = Capital

M = Material inputs

T = a vector representing technology and state of knowledge relevant to production

C = internal rules of the game

F_R = is the production function corresponding to property rights structure R. F is the set of all such production functions (external rules of the game)

The Open corporation

- The decentralized economy (neo-classical model) + transaction costs equals
- The laissez-faire economy (NIE model)

Agency costs from separation of owners and mangers

1. Argued to be high, individual shareholder benefits from monitoring management are small compared to monitoring costs when collective action is costly (Berle and Means 1932)

Limits on agency problems

- Competition in the market for managers
- Competition in the market for capital
- Competition in the market for management teams (takeovers, mergers, etc)
- Contractual devices
  - Auditing, budget restrictions, incentive systems (payment in stock)
- Bonding devices

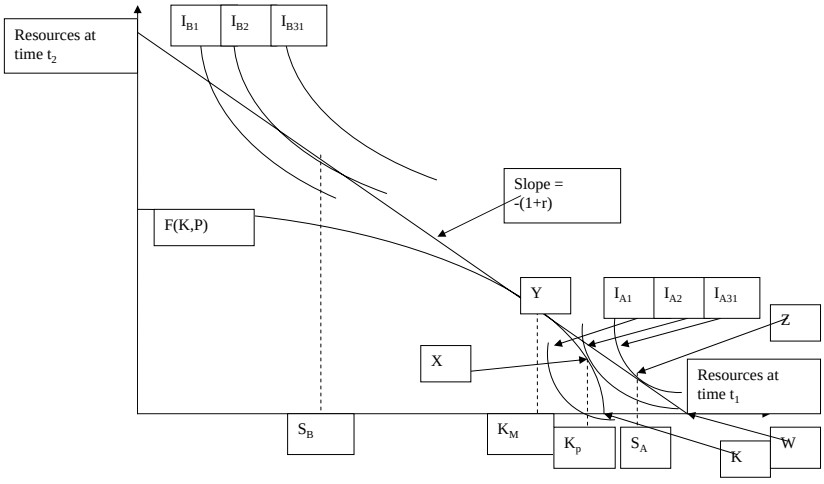
Forms of business organisation:

According to governance of residual income

- Corporations
- Partnerships
- Proprietorships
- Financial mutuals
- Non-profit organisations

Choice of organizational form

Figure 6.1 (Eggertsson 1990:190) Transformation function for a proprietorship and the level of optimal investment



Notes to figure 6.1

- F(K,P) transformation (production) function of proprietorship (P) with capital K, similar for open corporation, F(K, O)
- r is the rate of return on investing K in an open corporation (market rate of return)
- I_A curves are indifference curves, marginal rate of time preference for person A
- If person A is impatient, the highest satisfaction is reached at X, investment is then K_pK and consumption OK_p Consumption at t_2 is found on the vertical axis
- Problem: K_pK is an under-investment according to the market rule, level given at Y, with investment K_MK, valuing the venture to K_MW
- If A can find a B person with more patience, and sell the property rights to venture without shifting the F(K,P) inwards, the net value to B will be KW.
- B could now invest K_MK in the venture, buy securities equal to S_BK_M and use OS_B for personal consumption
- For A the sale will increase his resources from OK to OK + KW and his utility maximising point is now Z representing a higher level of satisfaction than X. A can now buy securities for S_AW and consume OS_A in time=1.
- The alternative to finding a buyer is to organise as an open corporation.

Regulated firms and outcomes (1)

- Public monopolies with restrictions on profit
  - Lowering output price
  - Taxes
  - Inflating costs (more capital intensive technology, more on the job consumption)
- Goods and services have many valuable dimensions, if regulators control only one margin, firms are likely to make countervailing adjustments on other unrelated margins.

Regulated firms and outcomes (2)

- Special interests capturing the regulations may mistakenly claim lack of regulation leads to:
  - Destructive competition
  - Elimination of desirable cross-subsidies
  - Excessive risk and harm to consumers
- But not all regulations are stupid or corrupt
  - Many critical studies are based on the Nirvana fallacy
  - Regulations should be evaluated in terms of practicable alternatives.

Political firms

- Providing public goods, or merit goods is usually tax financed
- Citizen-owners of firms have few avenues of influence: leaving the community or collective political action
- In commodity production the evidence is that political firms are less productive