

# **INSTITUTIONS AND INSTITUTIONAL DESIGN**

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## **Part VIII: Origin and development II**

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# Literature

- North, Douglass C. 1990 “**Institutions, Institutional Change and Economic Performance**”, Cambridge, Cambridge University Press,
- Williamson, Oliver E. 1996 “The Mechanisms of Governance”, New York, Oxford University Press, Ch 3 **Transaction Costs Economics**, pp54-87
- Peters, B Guy 1999 **Institutional Theory in Political Science**, London, Continuum

## North Ch 9

### Organisations, learning, and institutional change

- Organisations develop a demand for knowledge and skills (and generate tacit knowledge of their own activities)
  - Property rights (patents) has helped create the innovation feature of western economies
  - Technological innovations are path dependent
  - Ideology and knowledge directs the attention of investigations but also develops by new insights

North (1990:73) “Organisations will be designed to further the objectives of their creators. They will be created as a function not simply of institutional constraints but also of other constraints (e.g. technology, income, and preferences).”

By playing the game participants develop skills and perceptions of needs for knowledge (tacit and communicable knowledge)

(1990:73) “The kinds of knowledge, skills, and learning that members of an organisation will acquire will reflect the payoff – the incentives – imbedded in the institutional constraints.”

This structure of demand will profoundly affect the development of the stock of knowledge of a society.

And in general we have the Thomas theorem: “If people believe a phenomenon to be real it is real in its consequences.”

(1990:76) “People’s perceptions that the structure of the rules of the system is fair and just reduce the cost; equally, their perception that the system is unjust raises the cost of contracting (given the costliness of measurement and enforcement of contracts).”

# Institutional change

- From the particular demands for knowledge
- Shaped by interactions of
  - Existing institutions,
  - Stock of knowledge and
  - Maximising behaviour of agents
- Incremental changes in informal constraints caused by maximising behaviour

North (1990:77) “In fact, the real tasks of management are to devise and discover markets, to evaluate products and product techniques, and to manage actively the actions of employees; these are all tasks in which there is uncertainty and in which investment in information must be acquired.”

(1990:78) “(1) the institutional framework will shape the direction of the acquisition of knowledge and skills and (2) that direction will be the decisive factor for the long-run development of that society.”

# Adaptive efficiency

- Allocative efficiency (Pareto conditions)
- Adaptive efficiency concerned with development through time; willingness to
  - Acquire knowledge and learning
  - Induce innovation
  - Undertake risk and creativity
  - Resolve problems and bottlenecks

North (1990:81) “The society that permits the maximum generation of trials will be most likely to solve problems through time (a familiar argument of Hayek, 1960). Adaptive efficiency, therefore, provides the incentives to encourage the development of decentralized decision making processes that will allow societies to maximize the efforts required to explore alternative ways of solving problems.”

“It is essential to have rules that eliminate not only failed economic organisation but failed political organisations as well. The effective structure of rules, therefore, not only rewards successes, but also vetoes the survival of maladapted parts of the organisational structure, which means that effective rules will dissolve unsuccessful efforts as well as promote successful efforts.”

# North Ch 10

## Stability and Institutional Change

Stability is furthered by

- Rules hierarchically nested
- Informal constraints
- Habitual behaviour
  
- In equilibrium no actor find it profitable to devote resources to rule changes

North (1990:83) “The sources of change are changing relative prices or preferences.”

North (1990:86) “Institutional equilibrium would be a situation where given the bargaining strength of the players and the set of contractual bargains that made up total economic exchange, none of the players would find it advantageous to devote resources into restructuring the agreements.”

# Most change is incremental

From shifts in

- Relative prices
  - Ratio of factor prices, cost of information, changing technology,
- Preferences
  - Changing relative prices (e.g. work-leisure, price of expressing ideas) may induce change in tastes
  - Ideas (moral, ethical) about the world

Changes in relative prices may break an equilibrium making it profitable not only to devote resources to renegotiating contracts, but also to go up the hierarchy to rule changes, or on the other hand to breaking of informal norms or customs.

Cultural change is part of the process. But culture change at another rate, usually much more slowly, than formal aspects of institutions.

North (1990:87) “the persistence of cultural traits in the face of changes in relative prices, formal rules or political status makes informal constraints change at a different rate than formal rules.”

# Discontinuous change

- Does the institutions allow incremental change?
- Does the preferences allow bargaining and compromise?
- Successful revolutions require coalitions making final outcomes uncertain
- Successful revolutions require ideological commitment to overcome free riding
- Discontinuous change is not so very discontinuous!

North (1990:91) “Perhaps most important of all, the formal rules change, but the informal constraints do not. In consequence, there develops an ongoing tension between informal constraints and the new formal rules, as many are inconsistent with each other. An immediate tendency, as has been described, is to have new formal rules supplant the persisting informal constraints. Such change is sometimes possible, in particular in a partial equilibrium context, but it ignores the deep-seated cultural inheritance that underlies many informal constraints.”

# North Ch 11

## The path of institutional change

- Technological paths of development
  - “QWERTY”, gas engines not steam, alternating current vs. direct
  - Fuelled by **increasing returns, learning by doing**
- Self-reinforcing mechanisms
  - Large set-up or fixed costs (falling unit costs)
  - Learning effects (improved products, lower costs)
  - Coordination effects (several agents using the same)
  - Adaptive expectations (further belief in prevalence)

The fundamental problem of the book: Why do we not get convergence of economies and societies to the forms producing economic growth. What prevents the adoption of more “efficient” rules?

# Competing Technologies

## Consequences of self-reinforcement

- Multiple equilibria (outcomes indeterminate)
- Possible inefficiencies (best T may have bad luck)
- **Lock-in** (once a solution is reached, exit difficult)
- **Path dependence**

In reality the competition is between organisations employing the technology (institutions)

The arguments applying to technologies can be applied to institutions (we may consider institutions as a kind of technology) and we find the same increasing returns characteristics, all of Arthur's mechanisms apply:

Institutions have large set-up costs,

There are significant learning effects

There are significant coordination effects (contracts with other organisations, investments in public goods)

Adaptive expectations obtain (caused by learning to use an institution)

# The path of institutional change

- Increasing returns (self-reinforcement)
  - with increasing returns institutions matter and shape the long run path of economies. But with zero transaction costs the path is approximately efficient
- Imperfect markets (significant transaction costs)
  - With significant transaction costs the subjective models of actors as modified by imperfect feedback and ideology will shape the path
- Divergent paths and persistently poor performance may prevail

North (1990:99) “The increasing returns characteristic of an initial set of institutions that provide disincentives to productive activity will create organisations and interest groups with a stake in the existing constraints. They will shape the polity in their interests.”

# The North-West Ordinance

- Governance and settlement of the lands in the West
  - Fee-simple ownership, inheritance, territorial government – self-governing, territory admittance as a state, a “bill of rights”, prohibiting slavery, and more
  - The law generated incremental change reinforcing its basic properties, but it was not inevitable.
    - Network externalities, learning of organisations, subjective models of the issues
  - Adaptively efficient economic and political processes

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But like the North-West path persisting, also inefficient paths may persist. North (1990:99) “The subjective mental constructs of the participants will evolve an ideology that not only rationalizes the society’s structure but accounts for its poor performance.”

Ex. Latin America : dependency theory, terms of trade

# Path dependence

- Entrepreneurs are constrained by existing institutions and by their imperfect knowledge
- Goals may not be reached
- Increasing returns of the institutional matrix means that even if specific changes may change history its direction remains the same
- USA vs Mexico: History matters

Thus the same change in relative price will have different consequences in different institutional set-ups, and the same institutional rules grafted onto different societies will have different outcomes because of different players with different perceptions of the issues.

In south America the introduction of constitutions inspired by France and the USA did not much affect their path of development as determined by their history of centralized bureaucratic control.

Increasing returns is common to both technological path dependence and institutional path dependence.

North (1990:103) “The perceptions of the actors play a more central role in institutional than in technological change because ideological beliefs influence the subjective construction of the models that determine choices.”

# A short summary

Institutions as

- Social facts by agreement (Searle)
- Thought worlds/ subjective models (Douglas)
- Rules of the economic game shaped by
  - Transaction and information costs
  - Subjective preferences and learning
  - Increasing returns and political processes

# Institutions are

Humanly devised rules with some

Humans mandated to monitor and sanction rules

- Created to aide in collective actions problems to safeguard life and livelihoods
  - Avoid conflicts, create justice
  - Allocate legitimate benefits and duties, profits and costs
  - Economize on transaction costs
- **Not** created to achieve efficiency or optimise economic performance(of the neo-classical model)

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While the single omnipotent and omniscient person would have no management problems at all, such a person would neither have fellows nor a society around. If we take as a starting point that fellow humans are around, that they compete in the acquisition of benefits from divisible and scarce resources, and that they also are concerned about the equity of the final distribution, certain problems follow inevitably:

- Allocation of resource quotas: who gets how much from each resource?
- Allocation of costs: how do you distribute costs (monitoring and sanctioning costs, other transaction costs,)?

oMonitoring: how do you organise controls so that no one takes more than agreed and that everyone pays his/ her share of the cost?

oSanctioning: what particular and practical consequences do rule breaking entail?

- Rulemaking: what are the procedures for (re-) negotiating the rules governing the management of the resource?

# Property rights institution

Tells that some person(s) have legitimate

- Rights and duties to be exercised in relation to
- Particular goods and services subject to possible
- Limitations on times and durations,
- Limitations of technology, and
- Limitations on organisation of exploitation

Property rights "help man form those expectations which he can reasonably hold in his dealings with others" (Demsetz 1967, p. 347).

This means that property rights are a central part of human interaction. Even in situations where the actual on-going interactions have nothing to do with the distribution of benefits, one can see that the prevailing property rights affect the framework of interaction at least by defining and infusing the space-time setting of the interaction with particular meanings and classifications of events (Douglas 1986).

According to Godelier (1984:76) "the concept of property may be applied to any tangible or intangible reality", and rules of property rights will "always assume the form of normative rules, prescribing certain forms of conduct and proscribing others under pain of repression and sanctions".

But he also warns: "Property only really exists when it is rendered effective in and through a process of concrete appropriation" (p. 81).

This view certainly echoes De Soto's (2000) view on the development of customary property rights in the extra-legal sector of most third world and former communist countries.

# The construction of social institutions

For example

- Property rights regimes
  - Public property
  - Common property
  - Private property
- Regulations regimes
  - Governing externalities
  - Protecting unitary/ universal values
- Bureaucracies

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Social facts, existing by common agreement (money, governments)

From Open access to Property rights (= proper, legitimate rights and duties)

Rights and duties exist in the minds of people. They consist in what people believe they can legitimately do to the physical world. The precise limits to the rights and duties are the result of negotiations among stakeholders trusting that their agreements will be enforced by the state (or its equivalent for customary rules). Political processes will from time to time impose new rights and duties or alter the definition of old ones. Discrepancies in understanding the precise content of rights and duties in given situations may on the one hand cause conflict and sanctioning, but also on the other hand, learning and adjustment to the new content of the rights regime.

Bureaucracies

Rights and duties need guardians with power to monitor behaviour, interpret rules, and sanction breaches. The structure of power in such organizations, and the worldviews brought to bear on the perception of activities of owners and users of resources and the interpretation of the rules governing their activities, are critical for the long-term sustainability of the institution.

# The social construction of institutions

## Informal institutions

- Conventions
- Customs
- Values, Preferences
- Norms, Standards of conduct
- Beliefs, Ideologies, Morals

All formal institutions are created, or grow, on top of a foundation of informal institutions. Thus resource management institutions comprise not only the formally created institutions (property rights and public regulations), but also the customary practices based on local culture and perceptions, as well as the corporate culture of professional bureaucracies.

Without some degree of congruence between informal rules and formal rules, the escalation of monitoring and sanctioning costs will make the formal institution ineffective.

# The dynamic of Institutions and organisations

- Rules of the game (the law)
- Guardians of the rules (the judge)
- Players (organisations)
  - Owners,
  - Local users,
  - Workers,
  - Professional managers, and
  - Firms of resource industries

all pursue their goals, values and preferences within the constraints of both a physical and institutional reality.

# Strategies of the players

Our theory requires by assumption that players

- Optimise their returns from resource use activities by conforming to and **exploiting the existing institutional environment**, or to
- **Change the resource policy** in a desired direction if the expected outcome of a political effort is seen as cost effective.

The competition among actors ensures that those who are best at exploiting the resources within the existing institutional system will prosper and become powerful. The historical dynamic of adaptation to an institutional structure among actors produces a lock-in between the population of actors and the institutional structure.

# Lock-in of institutions and organisations

- Mutual interdependence institution-organisations
- Institutional changes by public initiative or revolution creates counter-forces
- Economic performance is **PATH DEPENDENT**
- Change occurs at the margins

But the opposition to proposals of changes of institutions may not come only from the population of actors prospering from their usage of the resource system. If the proposed institutional changes entail major changes in the bureaucracy monitoring the rule system, such as changing the allocation of power, or changing the allocation of resources for monitoring and sanctioning, also the bureaucrats may take “political” action directed at minimizing the actual changes.

# Eggertsson 1990 Ch 8

## Emergence of property rights

- Basic: a state prefers to maximise the wealth of the country, other things being equal
- The naive model of property rights
- When exclusive rights do not emerge
- Interest group theory of property rights
- Rent seeking

Eggertsson (1990:247-280) Ch. 8 “The Emergence of Property Rights”

Eggertsson (1990:248) “a macro version of Coase’s law:

“The economic growth and development of a country are basically unaffected by the type of government it has, if the cost of transacting in both the political and economic spheres is zero. However, when transaction costs are positive, the distribution of political power within a country and the institutional structure of its rulemaking institutions are critical factors in economic development.”

# The naive model of property rights

- Property rights develop to internalise externalities when gains of internalisation are greater than costs of internalisation.
- Only private benefits and costs are considered
- It emphasises exclusion costs and considers
- Internal governance costs of shared rights
- NOTE: Both are costs of collective action and depends on political institutions

Classic reference for the naïve model: Demstz 1967 “Towards a Theory of Property Rights”

Example discussed: the introduction of exclusive rights to hunt beaver in the eastern part of Canada after commercial hunting was introduced by the Hudson Bay company.

One reason for the failure of exclusive rights to protect the beaver population was that hunting for private consumption was open access. This GS (Good Samaritan clause) provided insurance and lowered enforcement costs of exclusive commercial rights, but it had its costs in terms of depletion of beaver stocks.

Eggertsson (1990:254) the naïve theory used by North and Thomas (1977) and North (1981) to explain the emergence of agricultural societies. The driving force in their model is population pressure.

Eggertsson (1990:262) “Individuals can use the state in several ways for their personal gain: by lobbying for rules that increase the community’s aggregate wealth, by seeking direct transfers that are not output enhancing and may have negative effects on incentives, and by obtaining property rights that create artificial scarcities and output losses.”

The naïve theory is consistent with all types of behaviour.

# When exclusive rights do not emerge

Open access because of

- High exclusion costs
  - Fisheries
- High internal governance costs in a commons
  - Heterogeneous fishermen
- Open access enforced by the state
  - Value of equal access

Eggertsson (1990:263) “With rising marginal costs of enforcement and falling marginal benefits, exclusive rights are seldom complete. Furthermore, optimising owners seek enforcement at margins where costs of measurement and enforcement are low.” ... “In most communities the uses of scarce and vital resources tend to be constrained by some form of exclusive rights.”

Eggertsson (1990:266) “Our analysis suggests that, other things being equal, high exclusion costs will push the ownership structure of a resource toward a large commons, which is consistent with the organisation of ocean fisheries of today.”

That is most fisheries are state property, states granting individual fishers use rights.

Why will a state tolerate that rent from fisheries is dissipated?

Johnson-Libecap 1982 argues that the heterogeneity of fishermen may explain their missing support for regulations.

Libecap-Wiggins 1985 report that high costs of ex ante estimating the value of leases of oil fields are the major facto blocking spontaneous private contractual agreements on unitization or lese consolidation.

# Interest group theory of property rights

- Case studies of
  - Regulations of the US oil industry
  - The agriculture of Norway
  - The bureaucracy of PeruDisproves the naïve theory
- The state is ruled by interest groups competing for maximum wealth

Eggertsson (1990:271) “The role of government in the naïve theory of property rights is implicit. It is assumed that the state will create a general framework of property rights that permits individuals to maximise the community’s net wealth by taking advantage of the division of labour and market exchange. In situations where transaction costs are high. The state maximises wealth wither by assigning property rights directly to individuals or by redefining the structure of rights in specific ways.”

Eggertsson (1990:275-276) “Property rights, which serve the narrow self-interest of a special-interest group but cause substantial output losses to the community as a whole, typically are explained in terms of transaction costs, free-riding, and asymmetrical information.”

# Rent seeking

- Concerns the losses of (neoclassical) social welfare losses resulting from the restriction of trade through tariffs, monopolies, and the like, which special interest groups obtain from the government.
- When information is costly the cost of struggles may easily exceed the rent sought

The interest group theory of property rights is closely related to the theory of rent seeking.

# Eggertsson 1990 Ch 9

## Property rights in stateless societies

- Origin of cooperation
- Order: violence and deterrence
- Order: customary law and ideology
- Evolutionary theory
- Insurance functions
- Iceland's commonwealth 930-1263
- International property rights

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Eggertsson (1990:282) “Let us assume that comparative statics analysis reveals that a particular society depends on relative costly political institutions in terms of resource costs and net output foregone and, further, that alternative institutional arrangements are known and technically available. Neo-institutional economics suggests three responses to such findings. First,

- the investigator reexamines carefully the transaction costs dictated by the physical environment of the community and attempts to establish whether alternative institutional arrangements would in fact economize on resources and generate more wealth, even when political costs of institutional change are ignored. Second,
- He or she seeks to model and investigate the political environment of the economy in order to identify political constraints on institutional change.” ... “ Third,
- The investigator looks for strongly held values (perhaps relics from a prior environment) that get in the way of institutional change.”

# Stateless societies (1)

## Violence and deterrence

- Prisoners dilemma
  - External constraints
  - Internalised values
  - Repetition, no endgame
- Umbeck's model of the gold rush
  - Work on either mining or violence

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Eggertsson (1990:284) “The social mechanisms for constraining open access and establishing exclusive rights fall into four interrelated categories:

1. Exclusion by means of force or threats of force
2. Values systems or ideologies, which affect individual incentives and lower the cost of exclusion
3. Custom and customary law, such as the rules in prestate societies that define the clan, vengeance group, or eligible brides for a man and other forms of behaviour
4. Rules imposed by state and its agencies, including constitutions, statutes, common law, and executive decrees.

All societies, the modern state included, depend vitally on self-enforcement, customary law, and value systems for preventing general conditions of open access and destructive wealth seeking, but the role of these factors in shaping economic incentives is not well understood.”

Karl Polanyi: the economic analysis of exchange relations is meaningful only when allocation of resources is dominated by price-making markets.

# Choosing between aggression and non-aggression

Payoff in cattle units	Family Y				
	A	N			
Family X	A	4	4	18	2
	N	2	18	10	10

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Above In Matrix 9.1 the optimal joint solution is non-aggression (peaceful co-existence), but rational choice will give (A,A)

Next in Matrix 9.2 Certain retaliation will make outcomes (N,A) and (A,N) impossible given the rationality assumption i.e (N,A)=(A,N)=(0,0)

Matrix 9.3 Customary law and ideology produce secondary costs, for example reducing (A,A) to (-5,-5) (aggression reduces a payoff with 9 CU), and (N,A) to (2,9). In this game (N,N) becomes a dominant strategy.

Matrix 9.4 Modelling the emergence of cooperation in repeated games.

Robert Axelrod, The Evolution of cooperation, the tit-for-tat strategy. The role of the endgame. The role of the discount rate for valuing future benefits, and the chance of meeting the other player again. Developing a reputation.

Eggertsson (1990:3029 Schofield (1985) “The theoretical problem underlying cooperation can be stated thus: what is the minimal amount that one agent must know in a given milieu about the beliefs and wants of other agents, to be able to form coherent notions about their behaviour, and for this knowledge to be communicable to others.”

# Stateless societies (2)

## Customary Law and ideology

- Vengeance groups collectively responsible
- Systems of compensation payments often requires an arbitrator
- Cross cutting allegiances

## Insurance against hunger

Blocking of development of a state = blocking wealth and power

## Breakdown of the Icelandic Commonwealth

International property rights (no external constraints)

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Eggertsson (1990:304) “In prestate societies, the economic rationale for exchange is usually not specialization in production; the main function of exchange is rather to meet the community’s demand for insurance against hunger.”

Eggertsson (1990:308-309) Commonwealth 930-1262. “The eventual breakdown of the system was preceded by (1) a strengthening of the relative position of the chieftains vis-à-vis their liegemen, and (2) the merger of the thirty-nine competitive firms (chieftaincies) into a few oligarchic firms.”

Students of the Commonwealth have remarked how essentially the same constitution and the same laws generated widely different behaviour at different times.” The same is seen in our modern world:

- 1) Also strong states have measurement problems and agency costs – therefore contracts
- 2) States engage in collective action
- 3) Trade facilitated by public goods (measurement standards)

Hegemony cannot be modelled by the prisoners dilemma. A hegemon is a powerful state with resources to coerce weaker states to adhere to an international structure of property rights. Using selective incentives, reputation building, bluffing. Asymmetries in information and power are the basic features.

# Evolutionary models

How do particular personality traits emerge?

How do particular social customs emerge?

- Modelling by natural selection mechanisms
  - Genetic controls are “soft-wired”: learning
  - Both culture and genes are affected by selection
  - Culture change more rapidly than genes
  - Dominance, sharing, privacy
  - Defensive belligerence and reluctance to intrude may be “hard-wired” (the privacy ethic)

3.: E.g. genes ill adapted to urban factory life

4.: The three main social principles may have evolved in nature, closely intertwined.

Remember also Mary Douglas speculations about the functional dynamic tied to weak leadership (avoid dominance), strong boundaries (sharing), and the principle of betrayal (privacy as betrayal of the community)

Rational choice theories of cooperation requires a taste for some form of cooperation.

How can we model the emergence of tastes and ideology?

# Eggertsson 1990 Ch 10

## The state in neoinstitutional economics

From informal rules, values and taboos to

- complex exchange among unrelated individuals and specialized production
  - North's theory of the state
  - Investigations
    - Political coalitions and property rights
    - The state and its agency problems
    - Public finances, constrained optimisation
  - Democracy, information costs,
    - organisation of the US congress

# The state: a model

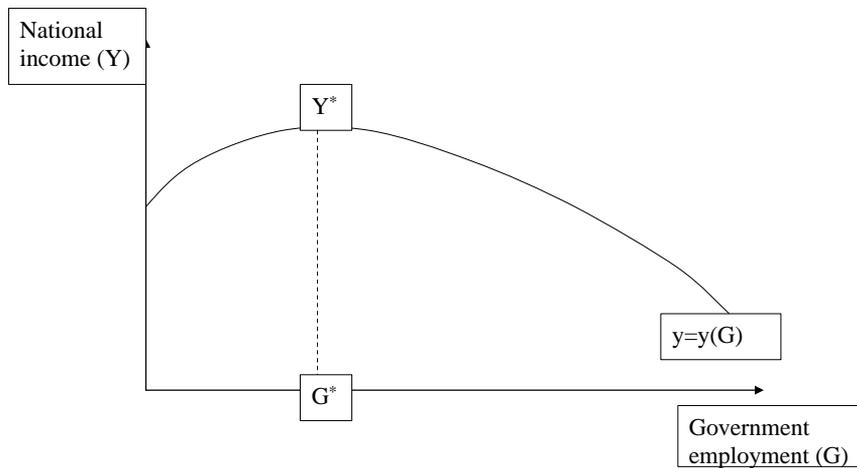
- Technical production frontier
  - Stock of knowledge
  - Endowment of resources
- Structural production frontier
  - Feasible organisation minimising costs, maximising output, defined by the
  - System of property rights depending on Political structure

Eggertsson (1990:319) “The stock of knowledge in society and the endowment of resources determine the technical upper limit for productivity and output, the economy’s technical production frontier. However, for each structure of property rights there is a structural production frontier, which is reached by selecting, from the set of feasible organisations, those structures that minimize costs and maximize output. The set of feasible forms of economic organisation is defined by the system of property rights (given the state of technology and other exogenous factors), and the system of property rights depends on the community’s political structure. And, finally, some political systems create incentives that place the structural production frontier close to the technical production frontier; other political systems do not. Usually, a political change is required to move the structural production frontier closer to the technical frontier, and, therefore, a cost-benefit evaluation of economic reforms must include both the costs of political change and the costs of maintaining (enforcing) each system.”

# Formal model (Findlay&Wilson)

- $Y$  = composite commodity made by inputs
- $L$  = labour services and  $K$  = capital stock
- Output  $Y=f(L,K)$  can be enhanced by a factor due to the public order:  $p(G)$
- $G$  = labour supplied by government workers
- $Y = f(L,K)p(G)$  where  $G+L = H$  fixed
- $\Downarrow Y = y(G)$

Figure 10. 1 National income and level of government employment



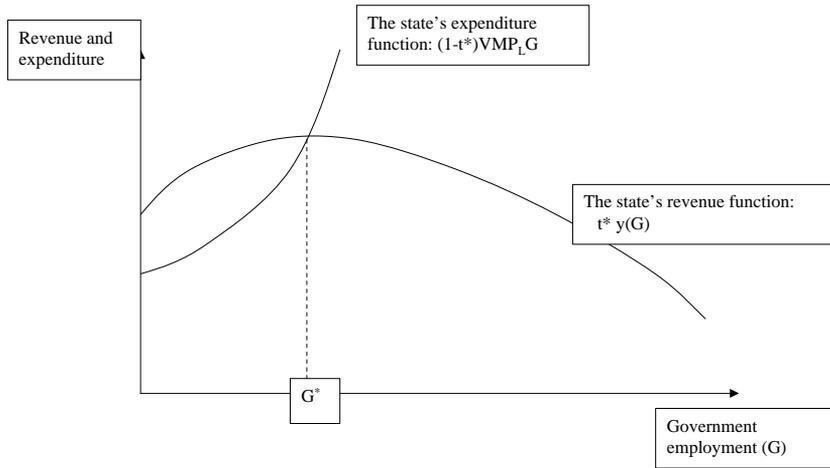
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$G = G^*$  maximises the community's joint income

# Figure 10.2 Equilibrium public employment



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Taxing all incomes at rate  $t$  gives the government revenue of  $tY$

Taxing at rate  $t^*$  with government employment  $G^*$  will maximise the government revenue (assuming competitive labour market with the same wage for all)

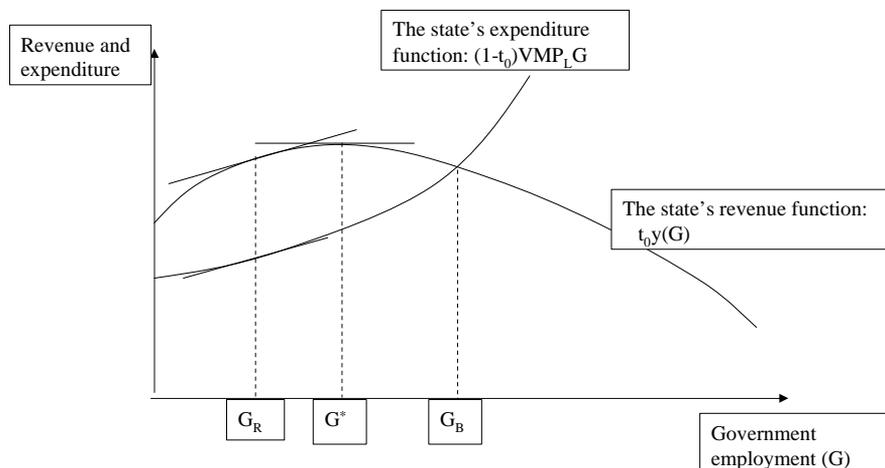
# The state: Ability to tax

A ruler maximises income under constraints

1. Threat of entry by rivals (have the ruler's subjects an alternative?)
  - Rational to tax with varying tax rates
2. Opportunistic behaviour of the state's agents
3. Measurement costs

Eggertsson (1990:323) “North defines the state as “an organisation with comparative advantage in violence, extending over a geographic area whose boundaries are determined by its power to tax constituents.””

Figure 10.3 Failure to maximise income when the tax rate is exogenous ( $t_0$ ) or bureaucrats out of control



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If  $t_0$  is set by a parliament, the ruler can only vary government employment.

$G_R$  maximises the state's tax surplus (tax minus expenditure (the greatest distance between income and expenditure)).

$G_B$  maximises government employment, all taxes go to wages (bureaucracy out of control: agency problems)

$G_R$  is always to the left of  $G^*$ , there is an undersupply of public service. But alternative ways of taxing or giving the ruler the right incentives will often be blocked by measurement cost, costs of contracting and power politics.

# Investigations (1)

The structural production frontier depends on

- Decision-makers bearing the full costs and benefits of decisions
- Rights are secure and clearly defined, there is low cost conflict resolution mechanisms
- Lowering measurement and transaction costs
- Directly assigning property rights when TC prevents voluntary exchange

# Political coalitions and property rights

- Political power =  $f(\text{economic base}, 1/\text{cost of collective action})$ ,
- Divide and rule by selective rewards,
- Ideological fervour lowers cost of CA, and increases political power
- Population growth, military technology affects bargaining power

Bates (1981) studies “Markets and states in tropical Africa”

1. System of property rights unfavourable to farmers
2. The system favours urban dwellers, bureaucrats, and local industries
3. The state prefers direct controls to indirect measures affecting relative prices, it prefers mammoth projects (prestige?)
4. The state uses selective incentives for getting support from the countryside (allocation of agricultural inputs, rural services)
5. The state is ready to use violence against political entrepreneurs who try to capitalize on rural discontent

Farmers have high costs of CA, but adjust by producing unregulated crops rather than the one the government wants (cash crops)

# Agency problems in Soviet Type Economies

- Reforms may threaten the interests of the agents of the state
- High transaction costs may prevent side payments to ensure their loyalty to reforms
- STE: industry and agriculture managed by the state as one big firm
- Double structure: management and political controls (by communist party controlling appointments to management)

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Cumulative effects of the system's agency problems

the incentives are not to minimize costs, but to meet volume or value quotas

(resource intensity per output unit, transport intensity per unit GNP)

Increases in transaction costs due to changes in the technological environment

the hierarchical management structure works best when

- (1) final outputs have few quality dimensions
- (2) vertical phases of processing a commodity are few
- (3) when there are substantial economies of scale
- (4) when technologies does not require horizontal linkages

Efforts at reforms were thwarted by middle level party functionaries who would not make themselves obsolete

Their property rights to managerial positions (the nomenklatura system) cannot be abolished without transferring wealth away from them.

# Privileges of agents

- Nomenklatura privileges are system specific to STE (main beneficiaries are party apparatchiks and management bureaucrats)
- Military and police privileges are system specific to autocratic forms of governments

# Public finance and property rights

- Long-term investments only when future rights are seen as secure
- Predatory public finances may move the economy's structural production frontier away from the technical frontier
- Financing of early modern states faced
  - Political constraints
  - Measurement and other transaction costs in taxing
- Resulting in predatory financing

Eggertsson (1990:341) “Predatory public finances creates de facto incomplete exclusive rights, and wealth maximising individuals respond to uncertain property rights by making various adjustments to minimize the risk of appropriation.”

Eggertsson (1990:343-344) “ ..., a ruler who is not constrained by competition, agency problems, and measurement costs will seek to maximize the state's tax base. However, in the real world, rulers do face the constraints just listed: their control (ownership) of the potential tax base is incomplete and uncertain, and, under certain circumstances, dissipation becomes rational behaviour for a wealth maximising ruler.” ... But “the addition of further constraints can both create stable property rights and increase public and private revenues.”

# Protection against confiscation of quasi-rents

- Vertical integration
  - In politics leading to soviet type economies (STE)
- Constraining potential appropriators
  - Credible commitments by hostages
  - Deprivation of power to appropriate

England during the seventeenth century:

Eggertsson (1990:345-346) “The new political institutions and fiscal revolution made credible the government’s commitment to honour its credit contracts, and the new structures demonstrated how: “Rules that can readily be revised by the sovereign differ significantly in their implications for performance from exactly the same rules when not subject to revision.”(North and Weingast 1987:1)”

# Representative government

## Information costs and interest groups (1)

### Denzau-Munger model legislators maximize

- $V$  – votes constrained by
  - $E$  - effort ( a scarce resource); typically
    - » Actions benefiting her constituents
    - » Promoting policies for groups that do not vote, but may affect her constituents
    - » Advertising and informing voters
  - $R$  – resources available from non-voting groups wanting policy  $P_i$ 
    - » Allocating effort  $E_i$  to produce policy  $P_i$
    - » With production function  $P_i(E_i)$
- Resources are generated by  $R(P_i)$ , and votes by  $V(R)$

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Public Choice literature based on the neo-classical rationality assumptions leads to the conclusion that collective choice environments are unstable (the voting paradox) But institutions create stability ...

With one constituency indexed by  $u$ , two organised interest groups each promoting one policy program the legislator maximises

$$V = V[P_u(E_u), P_1(E_1), P_2(E_2), R] + \bullet(E - E_u - E_1 - E_2)$$

# Representative government

## Information costs and interest groups (2)

- Assumptions about information of voters
  - Rational ignorance (all info from legislator)
    - Implies legislator is controlled by interest group constrained by political competition and news media
  - Full information
    - Advertising is not necessary, R is not needed, the legislator will represent only the interests of her voters
  - Real behaviour is somewhere in between

With rational ignorance the response function becomes

$$V = V[R_1(P_1(E_1)), R_2(P_2(E_2))] + \bullet(E - E_1 - E_2)$$

With full information it becomes

$$V = V(P_u, P_1, P_2) - R \text{ drops out entirely}$$

# Representative government

## Transaction costs

- Markets for votes (logrolling) has high transaction costs
  - Commitment, keeping promises (there is no third party enforcer), asymmetric information and changing circumstances
- The organisation of legislatures can be understood as lower these to an acceptable level (in the US – the committee system)

Eggertsson (1990:355) “A legislator seeks votes for bills that make the largest positive impact on her reelection in return for giving her vote to bills with minimal negative impact on her election fortunes.