LECTURE 1

Government in a Market Economy

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Resource Allocation by Markets and Governments

Markets and governments are alternative mechanisms of resource allocation. Market allocation is an outcome of individual decisions by private agents – individuals, households, and firms – who own resources and determine their use. Government is a public agency which moves resources by fiat.

Comparative (dis) advantages

Main advantages of markets versus governments are (i) incentives, and (ii) information. Market agents are better informed than bureaucrats and have stronger motivation to use resources efficiently.

Demise of communist command economies has clearly demonstrated the power and value of these advantages

Big Governments are Back

In the modern world governments directly control up to 50% of GDP

Views of the 1980s-1990s – the smaller the better – have given way to growing appreciation of a government which is big and strong . What explains the persistent need for government in a free market economy?

Individual and Collective Rationality

Individual decisions are expected to make the best use of the available opportunities – they are optimal by default

Collective rationality : Pareto-optimality

Can one expect that a set of individual
choices will be Pareto-optimal?

First Theorem of Welfare Economics

Competitive market equilibria under certain conditions are Pareto-optimal

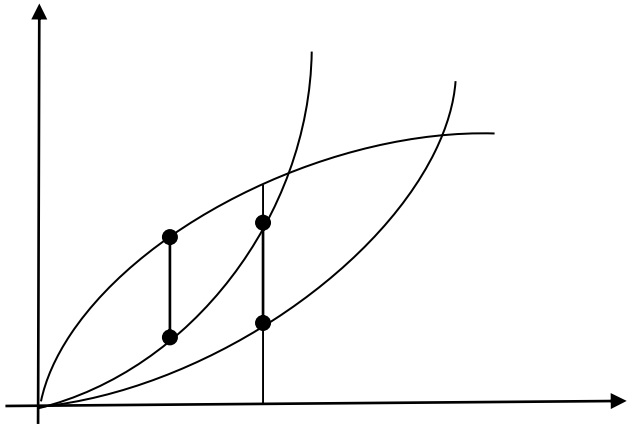
A qualification: all transactions are supported by competitive markets

Often markets are not competitive
or simply don't exist

Externality

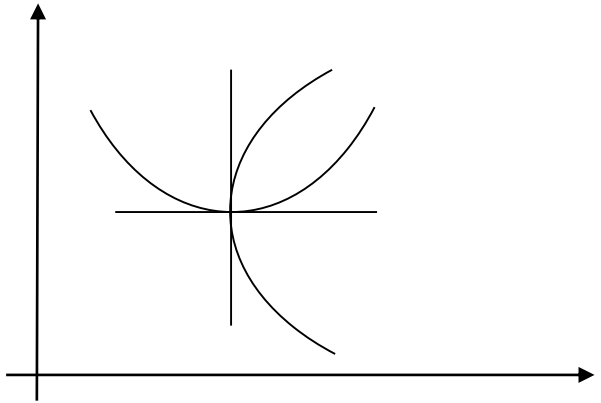
External costs are not accounted for when private decisions are made

Such costs divorce private rationality from the social one



When markets are absent, non-coordinated outcomes are Nash equilibria, which as a rule are **not** Pareto-optimal

Utility functions: $U_i(x_1, x_2), i = 1,2$; agent i controls x_i



Coase Theorem

Rational individuals through negotiations will always make the best use of available resources, i.e. reach Pareto-optimality

… provided that transaction costs aren't too high

Transaction costs can be prohibitively high, especially when the number of involved agents is large

Collective Action Problem in Public Goods Provision

$u(x, g) = x + \alpha(g)$

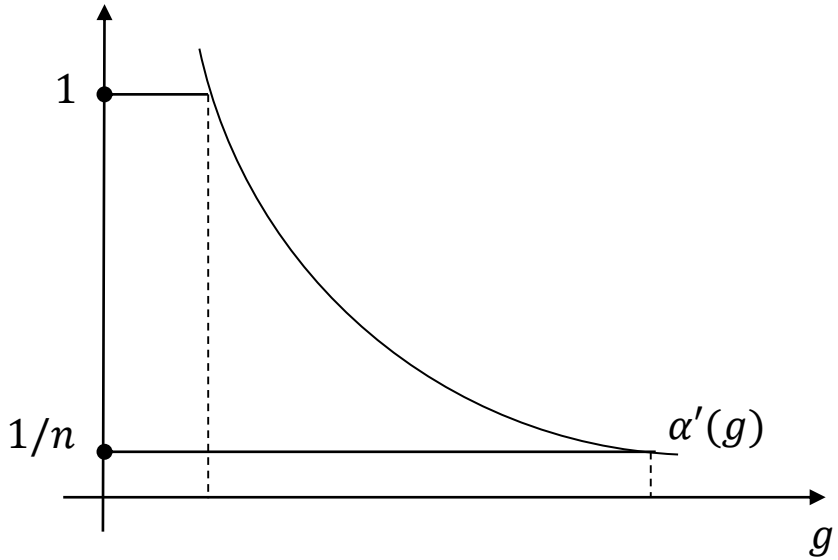
Private marginal benefits of contribution: $\alpha'(g)$

Social marginal benefits of contribution: $n\alpha'(g)$

Un-coordinated equilibrium: $\alpha'(g) = 1$

Social optimum: $n\alpha'(g) = 1$

Social Optimum and Private Provision



Required: An agency that would assume the responsibility to coordinate individual decisions in the interests of society … i.e. the government

Such agency should have the power to restrict individual freedoms and enforce its decisions, i.e. to suppress narrowly understood individual rationality for the sake of aggregate welfare

In theory such coercion and restriction of freedoms makes the society and every individual better-off

Example: $\alpha(g) = 2\sqrt{g}; \omega = 20; n = 10$ (agents)
Private equilibrium: $\alpha'(g) = {}^{1}/_{\sqrt{g}} = 1$
Individual welfare: $20 - {}^{1}/_{10} + 2 = 21.9$
Public optimum: ${}^{10}/_{\sqrt{g}} = 1; g = 100$
Tax: ${}^{100}/_{10} = 10$
Individual welfare: $20 - 10 + 20 = 30$

“Social contract” state is an outcome of the understanding of such collective benefits and consent of the society to establish an agency with coercive power to work in the public interest

More cynical view of the state is one of a “Stationary bandit”
… but history notwithstanding, in modern market democracies states are expected to be,
literally and metaphorically, public servants

Principal-Agent Setting

In a principal-agent relationship, the principal hires the agent to work in interests of the principal

In the relations between state and society, the state is an agent, and the society – a principal, and yet the agent has considerable power over the principal

Tools of the government

Taxes, public expenditures, laws and regulations

- **Taxes** raise funds to provide public goods, and to regulate externalities (“Pigouvian taxes”)
- **Public expenditures…**
- **Laws and regulations** align private incentives with social interests

Contract enforcement

Clients benefits: V; Contractor's costs: C
Net social gains: $V - C$
Social optimum: implement contract whenever $C \leq V$
Contract price: P

Contract enforcement:

If the contract is breached, the client is
entitled by law to receive expectation
damages $D = V - P$

Private Decisions and Public Interests

Contractor's private decision:

$$D = V - P > C - P$$

(comparison of losses and damages)

Private decision under government regulation is socially optimal: implement whenever $V \geq C$

Productive Activities vs Rent-Seeking

Governments are expected to align incentives and social rationality by improving condition for socially productive activities and suppressing rent-seeking.

- **Productive activities**: individual gains make the society better-off (positive – sum game)
- **Rent-seeking**: individual gains make the society worse-off

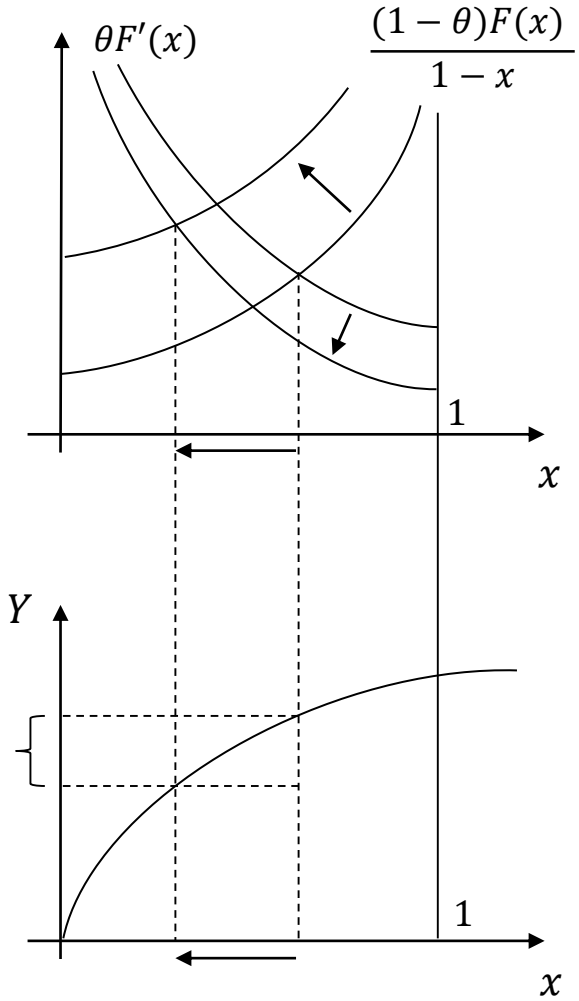
Individuals deploy their resources to productive activities or rent-seeking depending on the quality of government-supplied institutions.

Laws and order maintained by government affects investment and the allocation of human resources, and hence the wealth of nations.

Equilibrium Outcome

People choose between productive and unproductive entrepreneurship (“pirate or chemical engineer”) depending on the quality of government policies

$$\theta F'(x) \lesseqgtr \frac{(1-\theta)F(x)}{1-x}$$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