Role of Government in the Economy

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Overview

Fundamental questions related to public finance and the role of government in the economy

- Why do governments intervene in the economy?
- How do governments intervene in the economy?
- What are the economic effects of government intervention?

Positive versus normative economics

- **Positive economics:** Objective analysis of economic outcomes, e.g., effect of increasing interest rates on the number of mortgage applications
- **Normative economics:** Includes value judgements of what should be done, e.g., evaluation of various policies to increase education spending to make society better off

Use of positive economics to inform normative economics

Theoretical Basis for Government Intervention

Basic Theorem of Welfare Economics

If (1) households and firms act perfectly competitively, taking prices as given, (2) there is a full set of markets, and (3) there is perfect information, then a competitive equilibrium is efficient.

Implications of the First Welfare Theorem

- Achievement of Pareto efficiency in a competitive and private market, i.e., exhaustion of all gains from trade
- Competitive market as a benchmark to judge actual market outcomes
- Requires absence of market imperfections such as **public goods**, **externalities**, **imperfect competition**, and **asymmetric information**

Note: “Public” refers to a characteristic and not the provider

Reasons for Government Intervention I

Market imperfections exist and lead to an inefficient allocation of societal resources

- Underproduction of public goods
- Over- or underproduction of goods generating externalities
- Underproduction of goods given imperfect competition

Some characteristics of a perfectly competitive market

- Many producers and many consumers
- Free entry and exit (market)
- Price taking behavior
- Perfect information

Reasons for Government Intervention II

Motivations other than correcting market failures

- **Economic stabilization:** Insuring economic growth as well as preventing high unemployment and inflation
- **Redistribution:** Transfer payments to ensure a minimum standard of living for all members of society

General Social Survey (GSS) 2022: *We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much, too little, or about the right amount on welfare?*

- Responses: Too little (34.2%), about right (34.7%), too much (31.1%)

Economic Stabilization

A critical function of the government is to stabilize the economy

- Low and stable inflation rate
- Low unemployment rate

Monetary policy conducted by the central bank

- Setting of interest rate

Fiscal policy

- Taxes and expenditure
- Time lag between implementation and policy effects
- Requires approval of different chambers of government

Redistribution

Income goes to people who own valuable resources in market economy

- Unequal distribution of property, skills, land, etc.

Motivation for redistribution

- Social conscience
- Fear of social disorder

Implementation of redistribution of income to improve the standard of living of low income people and households

- Progressive taxes
- Transfer programs

How do governments intervene in the economy?

Government production of goods and services

- Infrastructure investments
- Requirement of taxes for funding government projects

Influence on private production

- Regulation and subsidization or taxation of private production
- Purchasing goods and services

Fiscal policy

- Redistribution of income through transfer payments from one entity to another entity
- Taxes on income and corporate profits as well as specific items to change consumption patterns, e.g., “sin” taxes on tobacco and alcohol products

Provision versus Production I

Production of goods and services by three sectors

- Private, public, and nonprofit

Who will provide goods/services?

- Particularly goods/services whose benefits to society are bigger than the cost to produce but will not be provided by the market?

Who will produce these goods/services?

- Public or private production

Provision versus Production II

Public provision and public production

- Local school districts, state police department, Federal Emergency Management Administration, Bureau of Motor Vehicles, etc.

Private provision and public production

- Police control at rock concerts, commercial satellites launched by NASA, fee-based services at state parks, etc.

Public provision and private production

- Private prisons, charter and voucher schools, private military contractors, almost every weapon system, etc.

Private provision and private production

- Private schools, Indiana Toll Road, etc.

Economic effects of government intervention

(Re-) Establishment of efficiency after correcting market failures

- Examples: Pigouvian tax and monopoly regulation

Equity versus efficiency

- Protection of certain groups may outweigh efficiency from a political perspective

Interaction between policies

- Federal subsidy on electric vehicles versus state registration fees on electric vehicles

Public Goods

Definition

Public goods

- "Public" as a reference to characteristics and not the provider of the good!

Public goods versus private goods

- Rivalry: Overall consumption is affected by individual consumption
- Excludability: Ability (or lack thereof) to exclude people from consuming

	Rival	Non-Rival
Excludable	Private good	Club good
Non-Excludable	Common good	Public good

Examples

Private goods

- Sandwich, laptops, etc.

Club goods a.k.a. toll goods (underproduced)

- Movies in theaters, toll roads, concerts, etc.

Common goods a.k.a. common pool resources (overconsumed)

- Aquifers, fishing grounds, petroleum reserves, etc.

Public goods (underproduced)

- National defense, mosquito abatement, pollution control, disease control, lighthouses, GPS, etc.
- Marginal cost of providing service to more people is zero

Externalities

Overview

Positive externality

- Production of uncompensated benefits received by others
- Examples: Landscaping, beekeeping, university, research and development

Negative externality

- Production of uncompensated cost borne by others
- Examples: Gulf of Mexico Hypoxic Zone, lack of seat belt use (more than one person in a car), cigarettes

Additional example: History of firefighting

- Example of fire insurance marks
- Fire protection is a public good but fire fighting is not

Pecuniary Externality

Actions of market participants have effect on market prices

- Purchase of beer increases prices in the market. More expensive for consumers but more profitable for producers.
- Under complete markets: Net zero effect and market inefficiency

Land prices rising in an urban area is a pecuniary externality

Imperfect Competition

Overview

Requirements of the First Welfare Theorem regarding perfect competition:

- Many producers and many consumers
- Free entry and exit (market)
- Price taking behavior
- Perfect information

Market structures suffering from an efficiency loss:

- Monopoly/Monopsony
- Oligopoly/Oligopsony

Other Market Failures

Adverse Selection and Asymmetric Information

Adverse selection: Market participation affected by asymmetric information

- Seller (buyer) has more information than the buyer (seller)
- Examples: Insurance, used cars, employment

Solution

- Identification of market subgroups and subsequent price differentials
- Government regulation

Moral Hazard

Change in risk engagement due to presence of insurance

- Property insurance (e.g., flood insurance)
- Health insurance (e.g., overconsumption of medical care)

Premium for federal flood insurance is about 38% of what it should be in the free market

Efficiency

Pareto and Kaldor-Hicks Efficiency

Pareto criterion for a policy

- At least one person being better off with no person being worse off.

Violation of the Pareto criterion

- One person being harmed even if majority of individuals being better off

Kaldor-Hicks criterion

- Positive net benefits to society such that winners could, in theory, compensate losers
- Basis for cost-benefit analysis

Drawbacks of Kaldor-Hicks criterion

- Improvement is potential and may not be realized

Public Choice

Collective choice majority rule example

Individual Resident	Individual Benefit	Cost Share	Individual Gain
A	3500	2000	1500
B	1000	2000	-1000
C	1500	2000	-500
D	4500	2000	2500
E	1500	2000	-500
Total Benefit	12000	10000	2000