

Introduction to Public Economics

Introduction to Public Economics

Key concepts, objectives, and analytical tools

1. What Is Public Economics?

Aspect	Description
Definition	Study of how government policies affect the allocation and distribution of resources in an economy.
Scope	• Provision of public goods • Taxation & revenue collection • Redistribution & welfare • Regulation of externalities • Fiscal federalism & intergovernmental transfers
Goal	Explain why governments intervene, evaluate the efficiency and equity of those interventions, and design policies that improve social welfare.

2. Core Economic Questions in the Public Sector

Question	Economic Issue	Typical Policy Tool
What to provide?	Public goods, merit goods, correction of market failures	Direct provision, subsidies, regulation
How to provide it?	Choice of delivery mechanism (government agency, public-private partnership, contracts)	Procurement rules, performance-based contracts
Who should pay?	Tax incidence, burden sharing, equity	Income taxes, consumption taxes, user fees
How much?	Optimal level of provision, fiscal balance	Budget constraints, cost-benefit analysis

3. Market Failures – Rationale for Government Intervention

Type of Failure	Description	Example	Policy Response
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Public Goods	Non-rival and non-excludable ? free-rider problem	National defense, street lighting	Government provision financed by taxes
Externalities	One party's actions affect others without compensation	Pollution, vaccination	Pigouvian taxes/subsidies, regulation
Information Asymmetry	One side has better information, leading to adverse selection or moral hazard	Health insurance, used-car market	Mandatory disclosure, licensing, standards
Monopoly Power	Single seller can set price above marginal cost	Utilities, railways	Price regulation, public ownership, antitrust law
Merit & Demerit Goods	Society values certain goods more/less than private market reflects	Education, cigarettes	Subsidies, taxes, bans

4. Public Goods in Detail

Characteristic	Non-rivalry	Non-excludability
Pure public good	Yes	Yes
Impure (club) good	Partially	Partially (excludable through membership)
Common-pool resource	Yes (non-rival until congestion)	No (excludable)

Optimal provision condition:

$$\left(\sum_{i=1}^N MB_i = MC \right)$$

(where (MB_i) = marginal benefit to individual i , (MC) = marginal cost of provision).

5. Taxation – Principles & Types

5.1 Fundamental Principles

Principle

Meaning

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Equity	Horizontal equity (similar ability to pay ? similar tax burden); vertical equity (higher ability ? higher burden).
Efficiency	Minimize excess burden (deadweight loss).
Revenue Adequacy	Generate sufficient funds for public expenditures.
Simplicity & Transparency	Easy to understand, comply with, and enforce.

5.2 Major Tax Instruments

Tax Type	Base	Typical Rate Structure	Main Advantages
Income tax	Labor & capital income	Progressive brackets	Redistributive, aligns with ability to pay