



# Intro to Public Finance

Week 2

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# Overview

- ◉ Fiscal functions of government.
- ◉ Pareto.
- ◉ Pure public goods.
- ◉ Private vs pure public goods.
- ◉ Provision of pure public goods.
- ◉ Pure and mixed public goods.
- ◉ Government failures.

## Major Fiscal Functions of Government According to Musgrave



**WHAT ARE  
FUNCTIONS  
OF GOVERNMENT?**

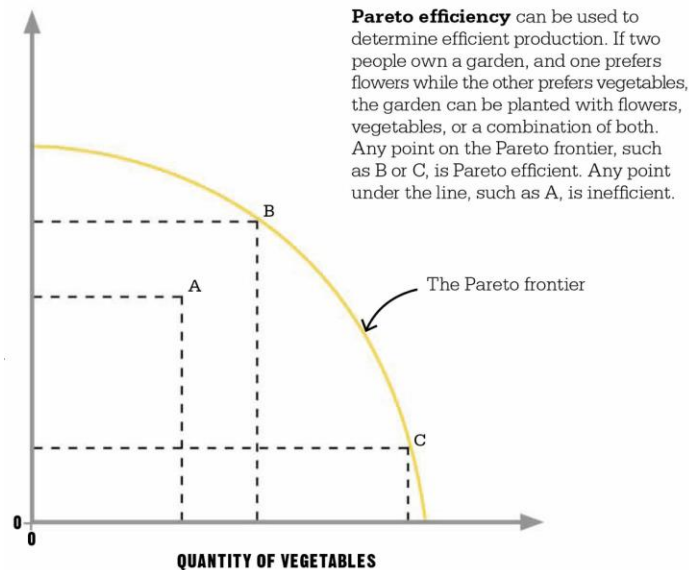
- Allocation
- Distribution
- Stabilization

# Major Fiscal Functions

## Three functions of conventional government



# Pareto Efficiency



- Occurs when no one can be made better off without someone being made worse off.
- Those who wish to build a road willing to pay more in tolls to cover construction.
- Still some adverse effects in terms of traffic flow, pollution, etc.

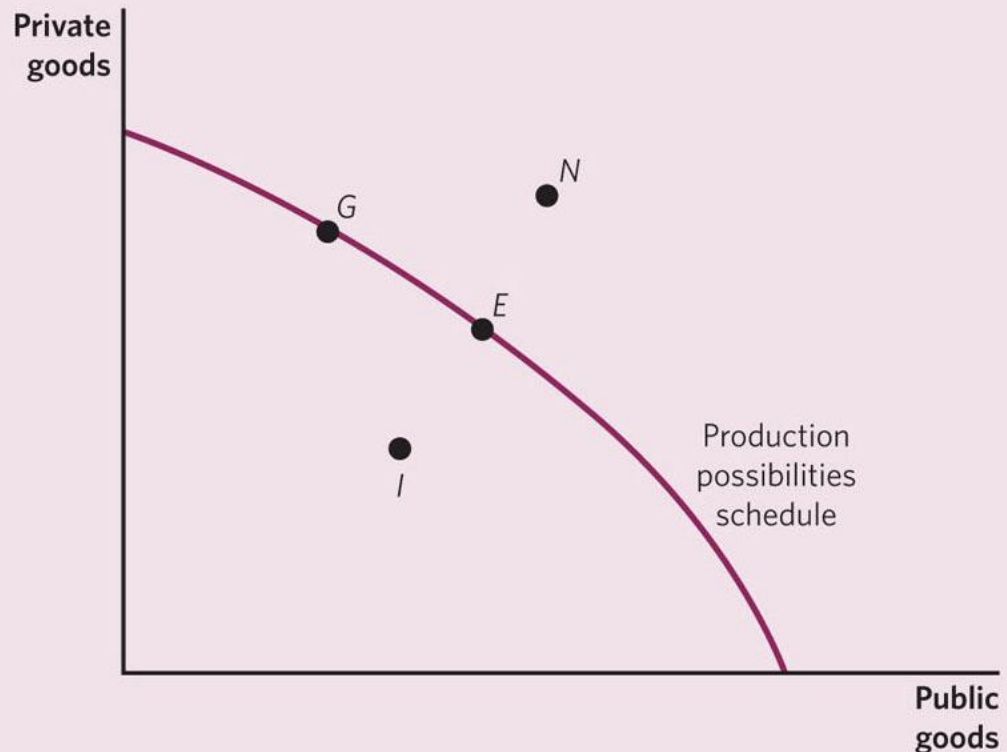
# Allocation

- Providing public goods and deciding what is the right mix of public & private goods in the economy. (Next slide)
- Two types of public goods:
  - Pure Public Good (national defense, lighthouse, national park system)
  - Mixed Public Goods



# Defining Public Sector Responsibilities

FIGURE 1.1



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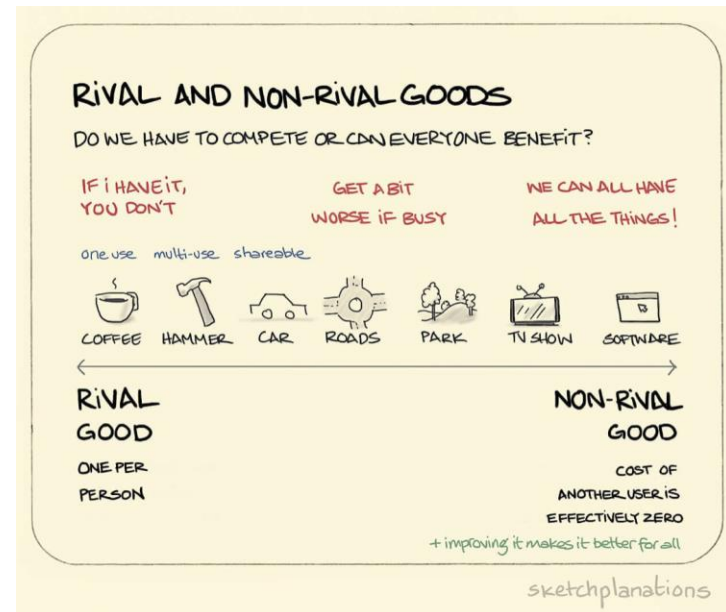
# Allocation Function

- Public goods and market failure
  - Nonrival goods and rival goods.
- Market as huge public auction.
- Exclusion principle
  - Inefficient to exclude any consumer from enjoying social good's benefits (e.g., national defense).
- Free rider problem.



# Allocation Function

- In the provision of pure public goods:
  - Consumers won't voluntarily reveal preferences for these goods (free rider problem).
  - Political process is substituted for market.
  - Taxpayers find it in their best interest to vote according to their economic preferences.



# Distribution

- Determines fair or just distribution of resources or income in the economy.
- The most controversial function because some argue that it should be the market that determines the distribution of resources, also what's fair?
- Market economy produces "winners" and "losers".



# The Distribution Function

- According to free market principles, income distribution depends on a person's factor endowments and prices they can get on the market.
- Some argue this is not fair.
- Why should a pro athlete earn more than a school teacher?

# The Distribution Function

- ◉ How Should Income Be Distributed?
  - ◉ Pareto optimality doesn't address equity concerns.
- ◉ 3 different normative approaches:
  - ◉ Endowment-based criteria.
  - ◉ Utility maximization.
  - ◉ Equalitarianism.

# The Distribution Function

- A basic theme of this course is the trade-off between equity & efficiency.
- Many places where this gets played out including tax policy.

# Equity & Efficiency

- ◉ Equity we'll define later—now we'll use “fairness” or “equality of resources” .
- ◉ Efficiency includes the following concepts:
  - ◉ Pareto Optimality
  - ◉ Defined in terms of individual' s well-being (i.e., utility curves).

# The Distribution Function

- ◉ Fiscal Instruments of Distribution Policy
- ◉ 3 chief instruments:
  - ◉ Progressive taxes with subsidies to low-income households.
  - ◉ Progressive taxes to finance public services.
  - ◉ Some combination of the above 2.
- ◉ Efficiency costs should be minimized no matter which option is picked.

# Distribution

- ◉ Political and social costs of allowing the market to decide winners and losers.
- ◉ But there are benefits too.
- ◉ One of the most serious political issues is the creation of a meritocracy.
- ◉ When does a meritocracy become self-perpetuating?



# Stabilization

- Maintain or achieve high employment rates, price stability, and high economic growth consistent with other policy goals using fiscal and monetary policies.



# The Stabilization Function

- ◉ Deals with macro aspects of economy (high employment, price stability, foreign accounts, and economic growth).
- ◉ Market cannot perform this function on its own.
- ◉ Instruments of Stabilization include:
  - ◉ Monetary - assures stable money supply, reduce fluctuations in money supply.
  - ◉ Fiscal - Influences level of demand by taxing and spending policies.
  - ◉ Both have an interactive effect.

# Coordination of Functions

- Economic policy involves distinct objectives that overlap in practice, which complicates policy design.
  - Taxation, service, and distribution issues are intertwined.
- Try to minimize conflicts among them.

# Pure Public Goods & Market Failure

- Combined Causes of Market Failure:
  - Nonrival and nonexcludable consumption.
    - Examples include water purification, national defense, lighthouse, streetlights
- Exclusion is both undesirable and impossible.

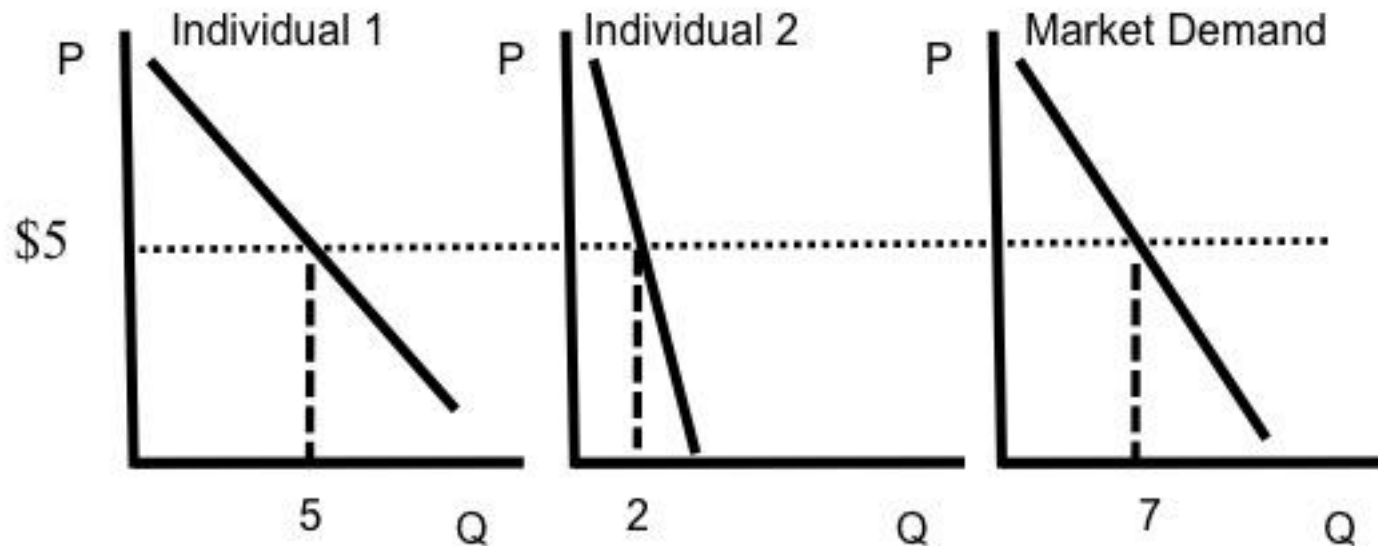


# Comparison of Private with Public Goods

- Market demand is given by adding the quantities which consumers purchase at any price.
- Horizontal addition of individual demand curves.  
(Next slide)

# Private Goods

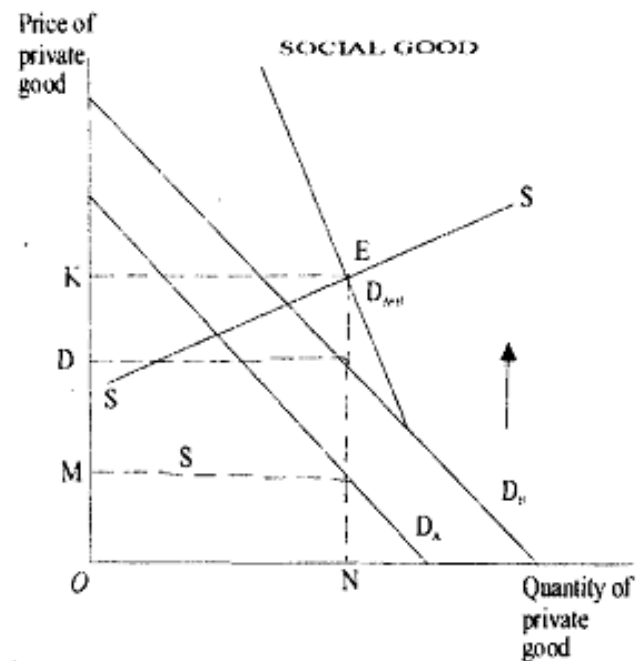
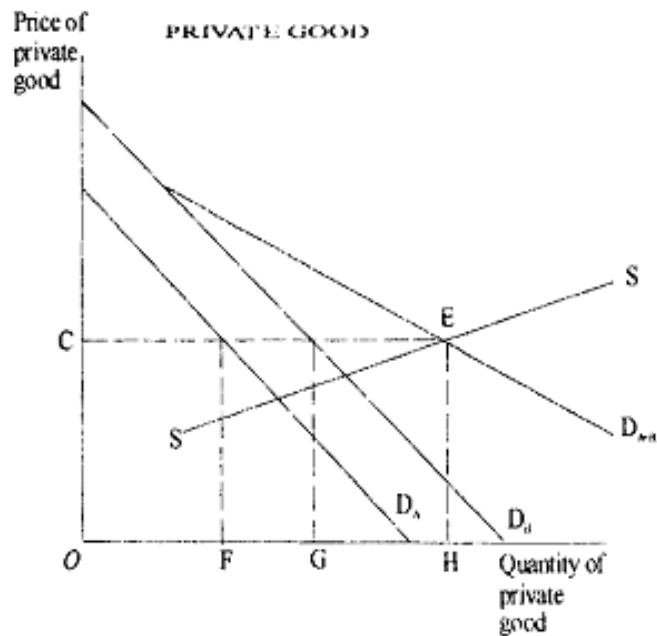
- Rival, Exclusive, & Divisible



# Comparison of Private with Public Goods

- “Pseudo-demand” curve is the vertical addition of individual demand curves.
- Shows the sum of the prices which consumers are willing to pay for any given amount.
- Consume the same amount.
- Each pays a price = to their evaluation of the good.

# Public Good Market



**Demand and Supply of Public Goods**



# Comparison of Private with Public Goods

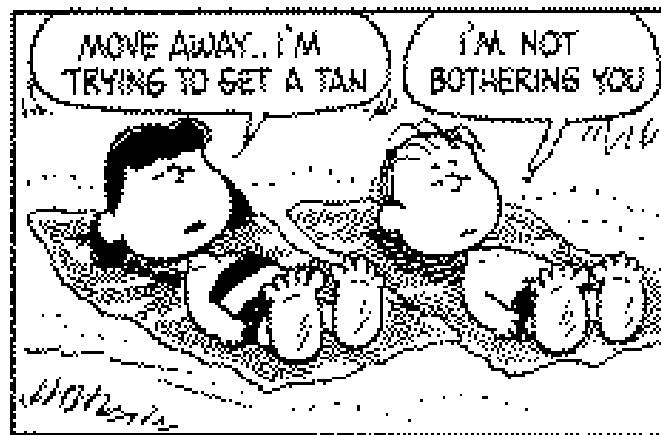
- Private good efficiency requires marginal benefit derived by each individual = marginal cost for individuals.
- Public good marginal benefits differ for each consumer.
- Sum of the marginal benefits that should equal marginal cost.

# Providing Pure Public Goods

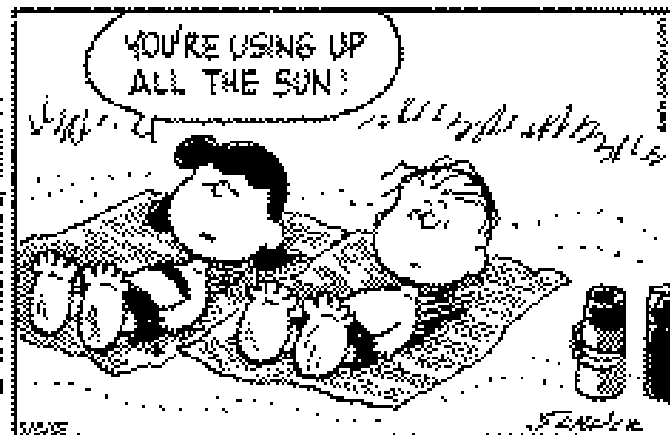
- Revealing individual preferences is a problem in public goods.
- Because pure public goods are non-rival and non-excludable, consumers will not voluntarily reveal preferences.
- How, then, do we determine demand?

# Providing Pure Public Goods

**Peanuts**



Charles M. Schultz



*Common Good? Rival or Non-Rival?*

# Provision of Public Goods

- ◉ Where the number of participants is large, an individual's contribution will make little difference in total provision
- ◉ Gives rise to free rider problem.
- ◉ National defense
- ◉ National parks
- ◉ Clean air and water

# Provision of Social Goods

- Voters reveal their preferences through voting.
- Substitutes for the free market in private goods.
- Inefficient because tax and expenditure decisions are seldom linked in voting process.

# Pure & Impure Social Goods

■ TABLE 7-1

## Defining Pure and Impure Public Goods

		Is the good rival in consumption?	
		Yes	No
Is the good excludable?	Yes	Private good (ice cream)	Impure public good (cable TV)
	No	Impure public good (crowded city sidewalk)	Pure public good (national defense)

# Private & Public Sectors Intertwined

- Public & Private Sectors are closely interconnected.
- This is known as the mixed economy.
- Policy decisions affect the operations of private markets.
  - Taxing & spending decisions impact on consumer choice & producer decisions.

# Private & Public Sectors Intertwined

- Public sector also buys factors of production & makes transfer payments to individuals & firms.
- Government is a monopoly consumer (monopsony) in some sectors including national defense and social services.



# Government Failures

- Government failures arise from:
  - Limited information.
  - Limited control over private market responses.
  - Limited control over the bureaucracy.
  - Limitations imposed by the political process.