

# BSM906

# Economic Environment of Business

Lecture 6  
Public goods

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# Types of goods

## Exclusion and jointness of use

	Jointness of use	
	Alternative use	Joint use
Feasible exclusion	<b>Private good:</b> Bread, shoes, automobiles, haircuts, books etc	<b>Toll good:</b> Theatre, night club, telephone service, toll road, cable TV, electric power
Infeasible exclusion (failure of property rights)	<b>Common pool resource:</b> Water pumped from a ground water basin, fish taken from an ocean, crude oil extracted from an oil field	<b>Public good:</b> Peace and security, national defence, fire protection, weather forecasts, “public” TV

# Types of goods

## Public vs. private goods

Private goods	Public goods
Relatively <u>easy to measure</u> quantity and quality	Relatively <u>difficult to measure</u> quality and quantity
Can be consumed only by one <u>single individual</u>	Consumed jointly and simultaneously by <u>many people</u>
<u>Easy to exclude</u> some who doesn't pay	<u>Difficult to exclude</u> someone who doesn't pay
Individual generally <u>has a choice</u> of consuming or not	Individual generally <u>has no choice</u> as to consuming or not
Individual generally has a choice as to kind and quality of goods	Individual generally has little or no choice as to kind and quality of goods
Payment for goods is closely related to demand and consumption	Payment for goods is not closely related to demand or consumption
Allocation decisions are made primarily by <u>market mechanism</u>	Allocation decisions are made primarily by <u>political process</u>

# Problem 1

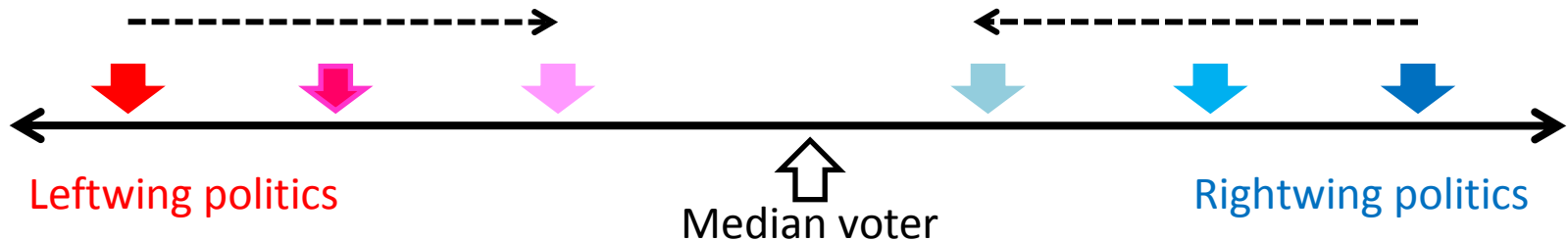
Would a private agent provide a public good?

		Roommate 2	
		Buy TV	Not buy
Roommate 1	Buy TV	-50, -50	-50, 100
	Not buy	100, -50	0, 0

- 2 roommates in college dorm
- If either one buys TV, the other will get to watch for free
- The outcome of the game would be that neither will buy a TV (how is this different from prisoners' dilemma?)
- But either roommate can offer the other £51 to induce him to buy the TV (how?)
- The free-rider problem will get worse if there are 3 or more roommates (why?)

## Problem 2

Can voting tell us which public good to provide?



- Two political parties with 2 types of policy agendas: leftwing and rightwing
- Voters can be lined up along a straight line, covering the spectrum from extreme leftwing ideology to extreme rightwing ideology
- If a party is too leftwing, some of the centrist voters will vote for the rightwing party, and vice versa
- It would always be good for each party to adopt a centrist policy platform
- This does not take into consideration how much more or how much less leftwing or rightwing someone is relative to the median voter

# Digression

## Problem with voting – order matters

- Three individuals with different preferences
  - Person A: Roads > Internet > Law & order
  - Person B: Law & order > Roads > Internet
  - Person C: Internet > Law & order > Roads
- If all three items are put on the ballot, each item will get one vote
- Two rounds of voting
  - Round 1 – *Roads vs. Internet*  
A votes for Roads + B votes for Roads + C votes for Internet
  - Round 2 – *Roads vs. Law & order*  
A votes for Roads + B votes for Law & order + C votes for Law & order
- What if a ballot puts Law & order head-to-head with Internet  
A votes for Internet + B votes for Law & order + C votes for Internet

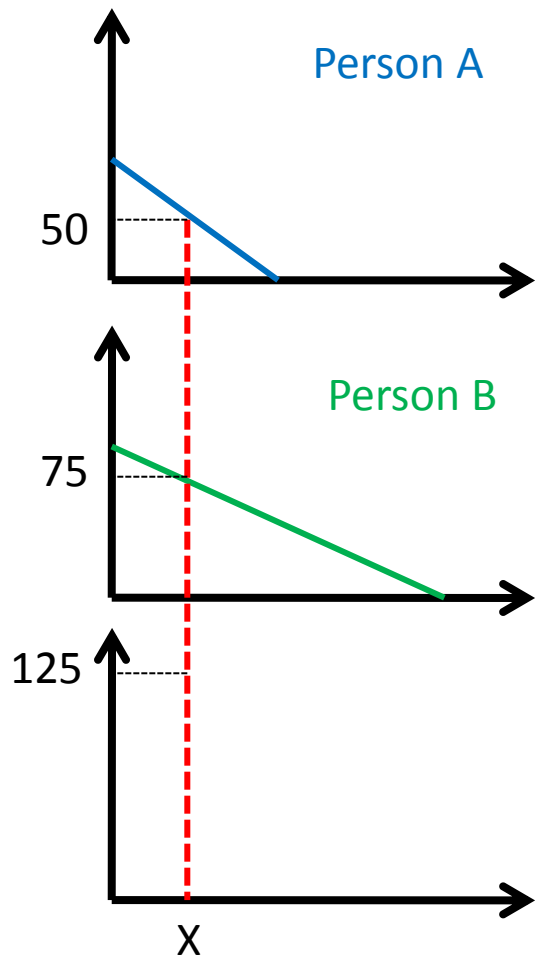
# Problem 3

## Diversity matters

- Observations
  - Poor public good outcomes in racially diverse cities in the USA
  - Higher proportion of elderly in a jurisdiction associated with lower public expenditure with education
  - Greater individual support for welfare spending if the majority of welfare recipients in the area belong to their racial group
- Empirical evidence
  - “[Ethnic diversity] is negatively associated with the share of budget in three ‘productive’ public goods: education, roads, and sewerage and trash pick ups.”

# Problem 3

## How much would voters pay for a public good?



- Government asks how much Person A will pay for X amount of the public good (= £50)
- Government asks how much Person B will pay for X amounts of the public good (= £75)
- Government can then raise £125 for X amounts of the public good
- This is not a practical solution to the problem because of free rider problem
- Government should deliver public goods based on social benefits and social costs and tax everyone

# Public goods

## Ways of organising delivery mechanism

- Government operates its own production unit
  - E.g., a municipality with its own health clinic
- Government outsources to a private firm
  - E.g., a municipality outsourcing the health clinic to a private firm
  - (*Variation:*) the above municipality outsourcing the health clinic to another municipality
- Government specifying standards and leaving the decision of procuring private services to individual citizens
  - E.g., a municipality setting standards of health care and leaving decisions about choice of water supply company to individuals
  - (*Variation:*) the above municipality providing vouchers to individuals for procuring health care
- Government part operates its own production unit and part outsources it
  - E.g., a municipality runs its own health clinic but outsources ambulance service to a private firm

# Public goods

## How should one choose the optimal mechanism?

- Local government provides school education
- But the social impact of the education is felt at national level
- Hence the cost of school education should be shared by local and national governments
- But this would make the financing less sensitive to local demands and local requirements
- The local families may find be able to tailor the local school system to their needs better if they are given vouchers instead