



MARKET EQUILIBRIUM AND PUBLIC SECTOR

Overview of Lecture 2

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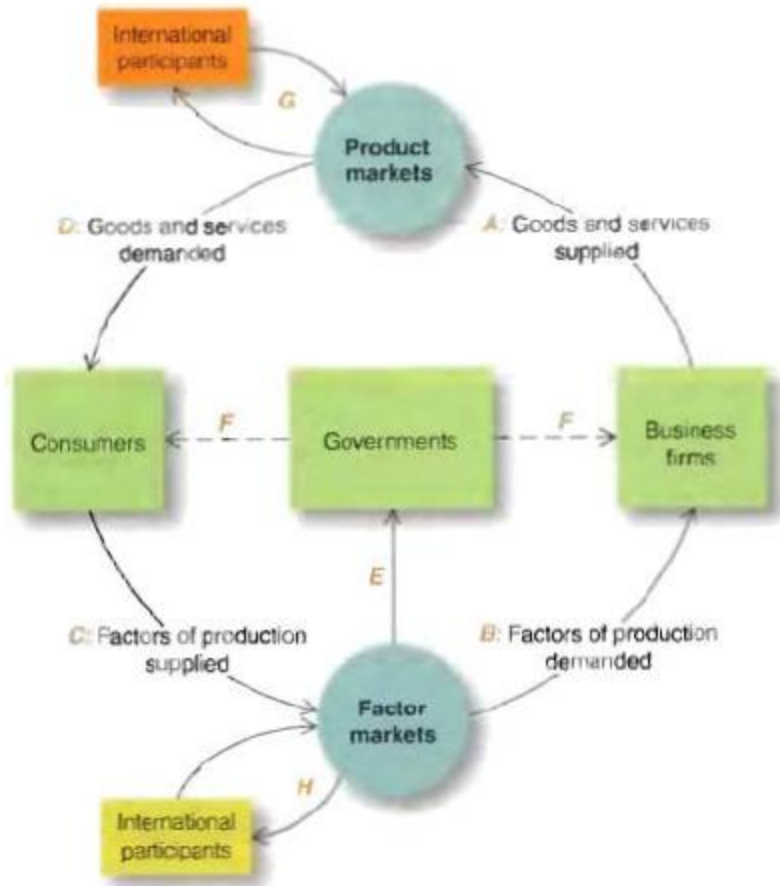
- ❑ Market equilibrium
 - ❑ Description: participants, flows
 - ❑ Demand and supply
 - ❑ Equilibrium

- ❑ Public sector
 - ❑ Market failure
 - ❑ Externalities
 - ❑ Public goods
 - ❑ Market power
 - ❑ Inequality
 - ❑ Scope of government intervention

Market description

Circular flow

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- **Factor** market:
 - ▣ Land, labor, capital
- **Product** markets
 - ▣ Goods & services

Note:

- Government services are not free
- Missing – money and payments

Market description

Individual demand

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Demand: the ability and willingness to buy specific quantities of good at alternative prices in given time period, *ceteris paribus*

- Not a statement of actual purchases
- **Law of demand:** with increasing price we demand less and less of good
 - Demand curve is decreasing
 - Exception: e.g. giffen good

Market supply: summary of the demanded quantities of all consumers

Market description

Individual demand - determinants

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Determinants of demand:

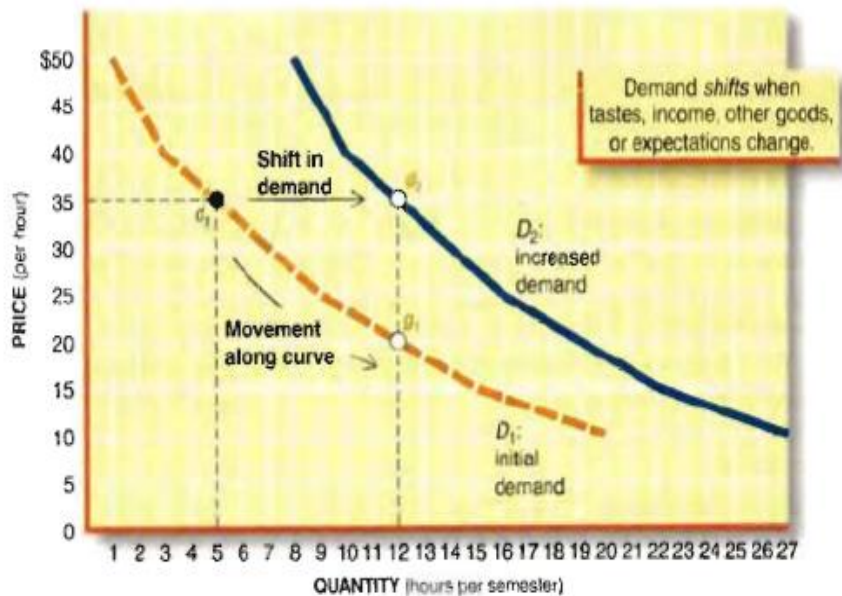
- Tastes: desire (e.g. ice-cream in winter)
- Income
- Other goods
 - Substitute and complementary goods
- Expectations
- Number of buyers

Under ceteris paribus condition, we assume all these are fixed (given)

Market description

Shifts in demand

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Movement along curve

- Change in demanded quantity
- Response to price changes of good

Shift in demand curve:

- Change in the quantity demanded at **any given price**
- Due to change in underlying determinants of demand – tastes, income, other goods

Ex.: pizza in White house

Market description

Individual demand

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Supply: the ability and willingness to sell specific quantities of good at alternative prices in given time period, *ceteris paribus*

□ **Law of supply:** quantity of a good supplied in a given time period increases as its price increases

Market supply: summary of the supply intentions of all producers

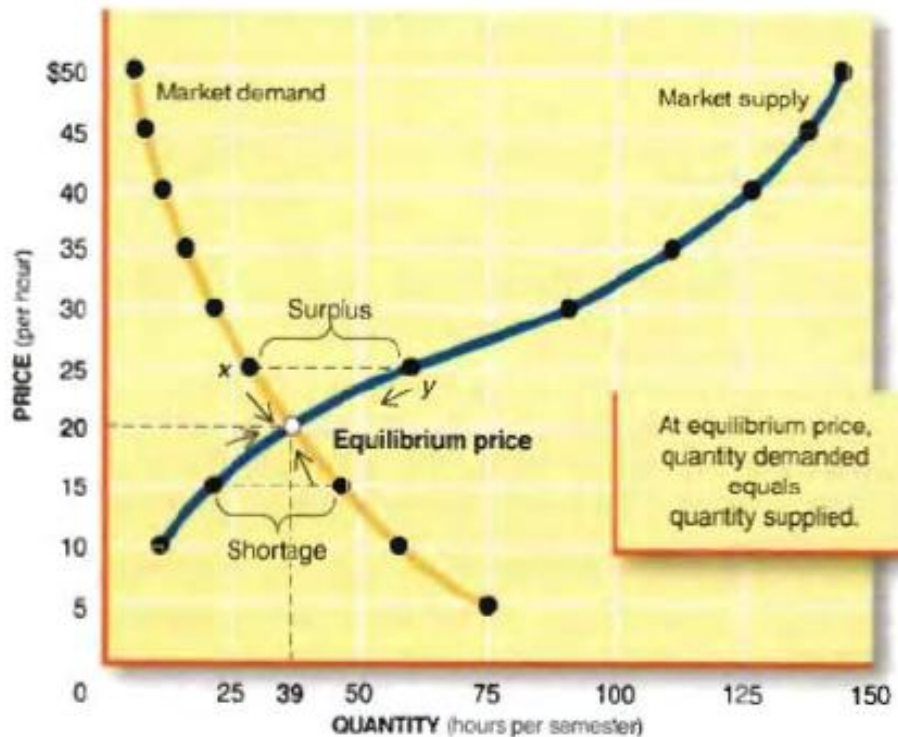
Determinants:

- Technology
- Factor costs
- Other goods
- Taxes and subsidies
- Expectations
- Number of sellers

Market description

Equilibrium

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Equilibrium:

- Intersection of demand and supply – only one compatible price and quantity level
- Equilibrating mechanism – price adjustment to
 - Market surplus
 - Market shortage
- Trial and error approach
- Note: price ceilings create market shortage (e.g. min. wage – unemployment)

Market description

Equilibrium – example of price ceiling

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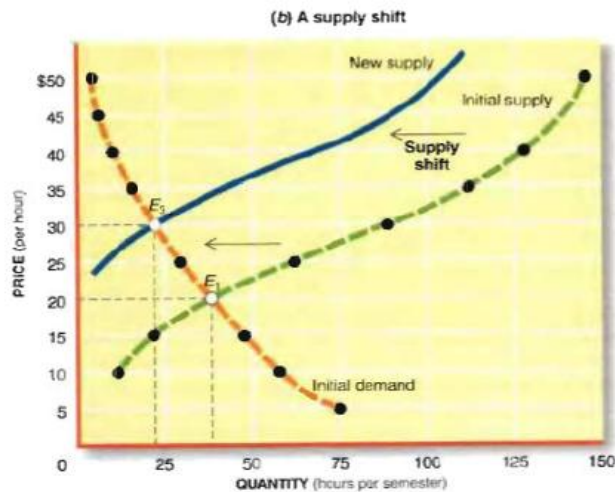
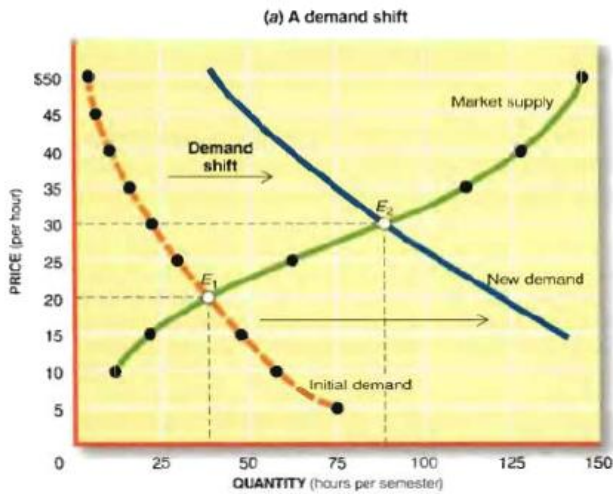
Organ donation:

- Market supply:
 - Both dead and living donors
 - ex. kidney, bone marrow
 - still have market incentives
- Zero Price ceiling
- Outcome = shortage
 - Growing global market for transplants
- Other mechanisms?
 - Opt-in / opt-out system

Market description

Changes in equilibrium

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□ Shifts in demand

- Ex.: additional income
- Outcome: higher price, higher output

□ Shifts in supply:

- Ex.: oil shock, effect of announcement of OPEC to cut the extraction rates on gas prices
- Outcome: higher price, lower output

Market outcomes

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WHAT

Equilibrium production

HOW

Most efficient way – minimize costs

FOR WHOM

For those willing and able to pay

OPTIMAL, NOT “FAIR”

Role of public sector

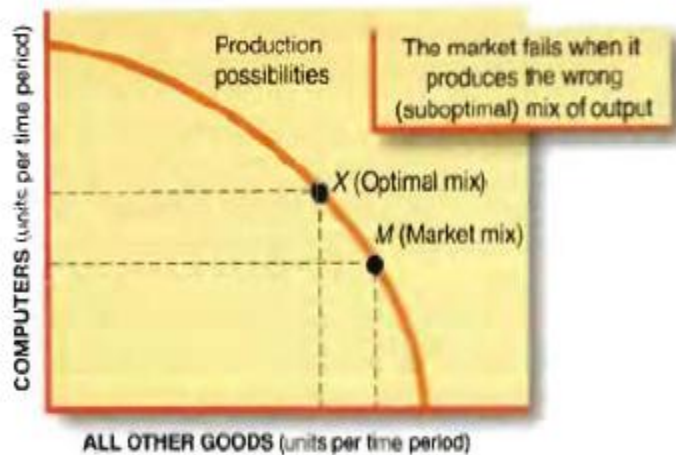
Overview

- When do markets fail?
- How can government intervention help
- How much government intervention is desirable?
- When does government fail?

Market Failure

Why and when do markets fail?

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-Optimal output (X) maximizes aggregate social utility (“happiness”)

In ideal world:

- Individual demands that reflects individual preferences aggregate
- Price signals convey information about aggregate demand

□ Market failure:

Market mechanism imperfection that leads to sub-optimal outcome

Sources:

- Public goods
- Externalities
- Market power
- Equity

GVT INTERVENTION NEEDED!

Market Failure

Public goods

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Public good = good / service whose consumption by one person does not exclude consumption by others

- ▣ Ex.: national defense, infrastructure, street cleaning

Free rider dilemma:

- ▣ **Free riders:** those who consume more than their fair share of a public resource, or pay less than a fair share of the costs of its production
 - Ex: free-riding in public transport
- ▣ Broken link: demand – paying – consuming
- ▣ “waiting” for others to pay – hidden demand for public good
- ▣ Leads to underproduction – needs to be taken care by gvt
 - Ex.: collecting taxes

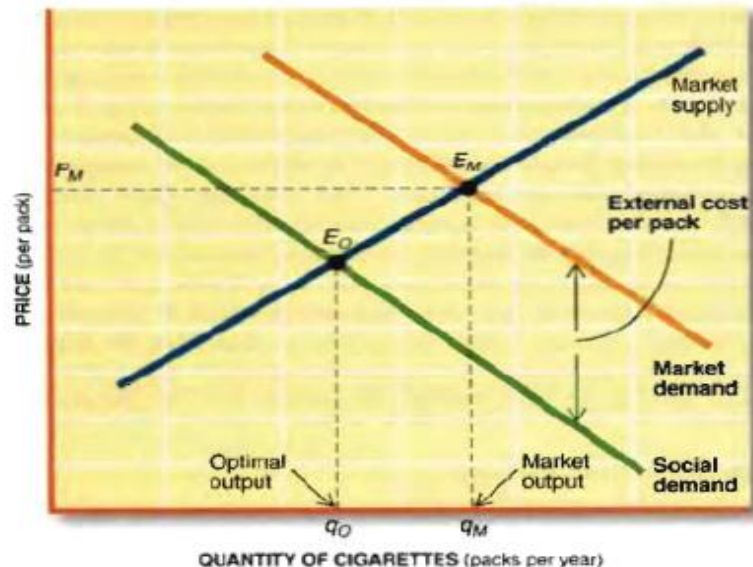
Market Failure

Externalities

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Externalities = costs /benefits of a market activity, borne by a third party

- Market prices **are not measuring good's value to society**
- Overproduction of goods generating external costs
 - ▣ Ex.: cigarettes, polluting production
- Underproduction of goods generating external benefits
 - ▣ Ex.: schooling, networking, gardening



Ex.: cigarettes
-**Social demand** would be lower than market demand (accounts for social costs)
-Thus, optimal output is lower than market output

Market Failure

Market power

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Market power= ability of producer / consumer to alter the market price of a good or service

- ▣ Ex. 1: **monopoly** – firm that produces the whole market supply
 - High prices, restricted output
 - Airlines that are operating given line (CSA: Prague – Tallinn)
- ▣ Ex. 2: **patents** – market power x property rights (generics)

Government regulation:

- ▣ **Antitrust legislation**
- ▣ **Regulation of market:** stock market
- ▣ **Natural monopoly:** based on economies of scale
 - e.g. utilities, telephone service, subway, cable TV
 - Still need to be regulated – hard to find balance

Market Failure

Inequity – FOR WHOM we produce

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Market outcome = who pays most -> larger share of total output goes to those with larger income

- ▣ Redistribute the output based on perceived fairness

Government tools:

- ▣ **Taxes and transfers:** social security, welfare, unemployment benefits
- ▣ **Merit goods:** goods/ services society deems everyone is entitled to some minimal quantity of
 - Health, food, shelter
 - US: food stamps, housing vouchers, Medicaid

Government Failure

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Government failure = government intervention that fails to improve economic outcomes

- Efficiency: we are not getting as much service as we could from money allocated to gvt
 - ▣ US estimates: federal government wastes 42 cents out of each tax dollar
- Opportunity costs: we are giving up too many private-sector goods in order to get gvt provided services
 - ▣ How much of government expenditures is appropriate?



G4 – improvement
G3 – inefficient intervention
G2 & G3 – opportunity costs

Government Failure

How much of government expenditures is appropriate?

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Cost-benefit analysis: additional public-sector activity is desirable only if **benefits from that activity exceed its opportunity costs**

- ▣ Valuation problems: how to measure benefits? (e.g. police presence); how to value these benefits (no market price)

Ballot box economics: voting mechanism substitutes market mechanism

- ▣ **Direct:** approvals of public-spending projects
- ▣ **Indirect:** elections to the parliament; choice of general level and pattern of public spending

Public-choice theory

- ▣ Government officials as self-interested agents, pursuing their own goals