In the Name of God

Sharif University of Technology

Graduate School of Management and Economics

Microeconomics

(for MBA students)

44111 (1393-94 1st term) - Group 2

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- **Microeconomics:**

A collection of models studying behaviour of units called economic agents. Microeconomic models investigate assumptions about economic agents' activities and about interactions between these agents.

What is an economic agent?

The economic agent decides what action to take through a process in which he

1. asks himself "What is desirable?"
2. asks himself "What is feasible?"
3. chooses the most desirable from among the feasible alternatives.

This deliberation process is what is called rational choice.

A more traditional view: microeconomics (and economics in general) teaches how to allocate scarce resources.

ECONOMICS ...

is the study of how society decides:

what,

for whom, and

how

to produce.

Jacob Viner defined economics as what economists do.

Ashraf, Nava. “Spousal Control and Intra-household Decision Making: An Experimental Study in the Philippines”; *American Economic Review*.

Bergstrom Theodore C., Rodney J. Garratt & Damien Sheehan-Connor . “One Chance in a Million: Altruism and the Bone Marrow Registry”; *American Economic Review*.

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Cattan, Sarah. “Identifying Sibling Effects on Teenage Risky Behavior”.

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Preliminary Definitions

- **Opportunity Cost**

  A crucial concept in economic analysis;

  The quantity of other goods that must be sacrificed to obtain another unit of a good.

- **Market**

A shorthand expression for the process by which …

- households' decisions about consumption of alternative goods
- firms' decisions about what and how to produce
- and workers' decisions about how much and for whom to work

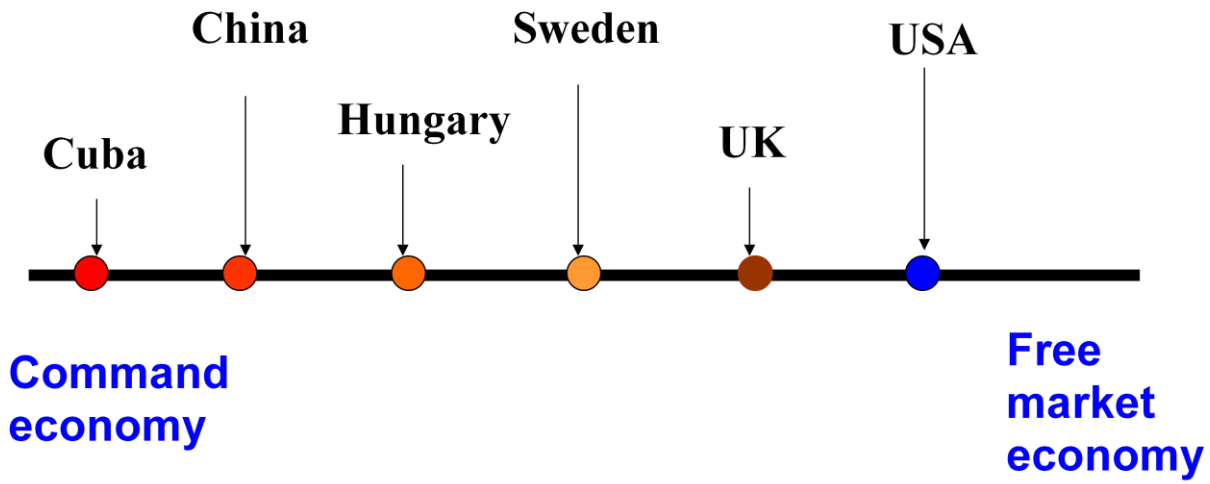
... are reconciled by adjustment of prices

Then Each market has two sides:

- demand and
- supply.

Different societies take different stands on how much they rely on market mechanism to allocate resources

- Command economy
- Mixed economy
- Free market



Adam Smith argued that an invisible hand would allocate resources efficiently.

Modern economies are mixed, relying mainly on the market but with government intervention. The optimal level of intervention is debated.

- **Positive v Normative Economics**

Positive economics deals with objective explanation e.g. if a tax is imposed on a good its price will tend to rise

Normative economics offers prescriptions based on value judgements e.g. a tax SHOULD be imposed on tobacco to discourage smoking

Positive economics studies how the economy *actually* behaves, but normative economics recommends what *should* be done.

- **Micro- v Macro- Economics**

Microeconomics offers a detailed treatment of individual economic decisions about particular commodities (consumer theory, supplier theory, cost analysis, market structure, …).

Macroeconomics emphasizes the interactions in the economy as a whole (economic growth, inflation, unemployment, …).

- **A Simple Example of an Economic Model**

To organize our thinking we need a simplified picture of reality

Focusing on key elements

Quantity of bus journeys demanded = f(prices, income, preferences, season, ...)

From the variables which one should/can we keep and which one should/can be ignored?

The answer to this question comes from our theory.

Econometrics helps us to confront economic theory with empirical reality using statistical techniques.

Evidence may allow us to reject a theory or accumulate support for it.

Competitive Markets; Demand and Supply

- **Market**

  A set of arrangements (mechanism) by which buyers and sellers are in contact to exchange goods or services

- **Demand**

  The quantity of a good, buyers wish to purchase at each conceivable price

- **Supply**

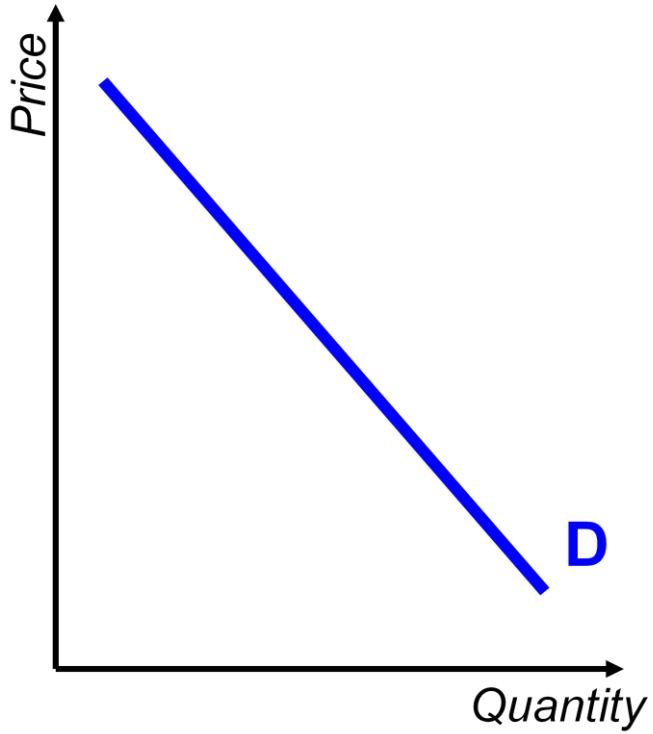
  The quantity of a good, sellers wish to sell at each conceivable price

- **Equilibrium price**

  Price at which quantity supplied = quantity demanded

- **Demand**

The Demand curve shows the relation between price and quantity demanded holding other things constant.



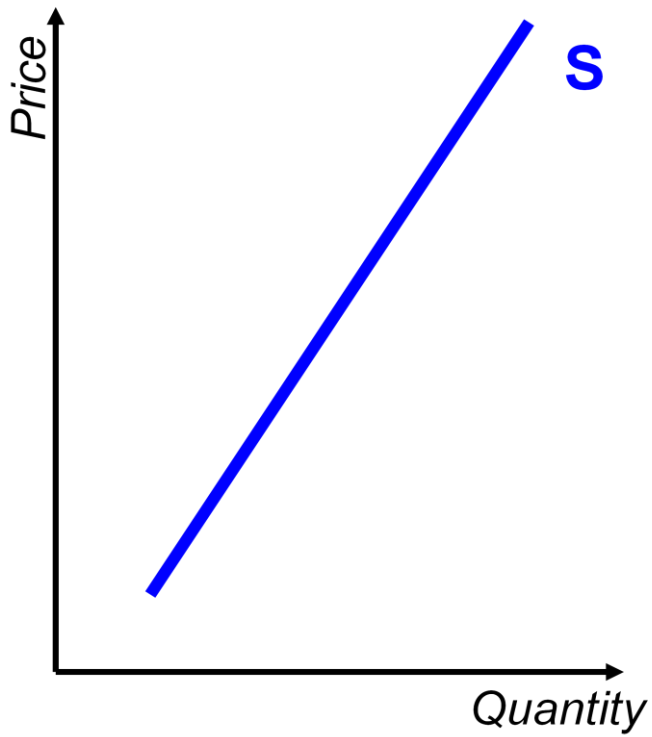
"Other things" include:

- the price of related goods
- consumer incomes
- consumer preferences

Changes in these other things affect the position of (shift) the demand curve.

- **Supply**

The Supply curve shows the relation between price and quantity supplied holding other things constant.



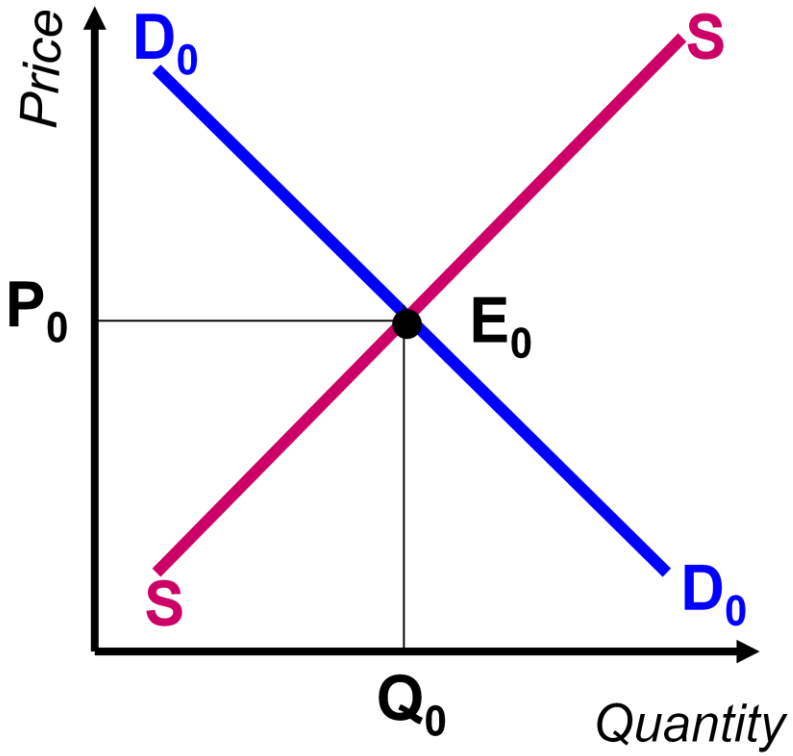
"Other things" include:

- technology
- input costs
- government regulations

Changes in these other things affect the position of (shift) the supply curve.

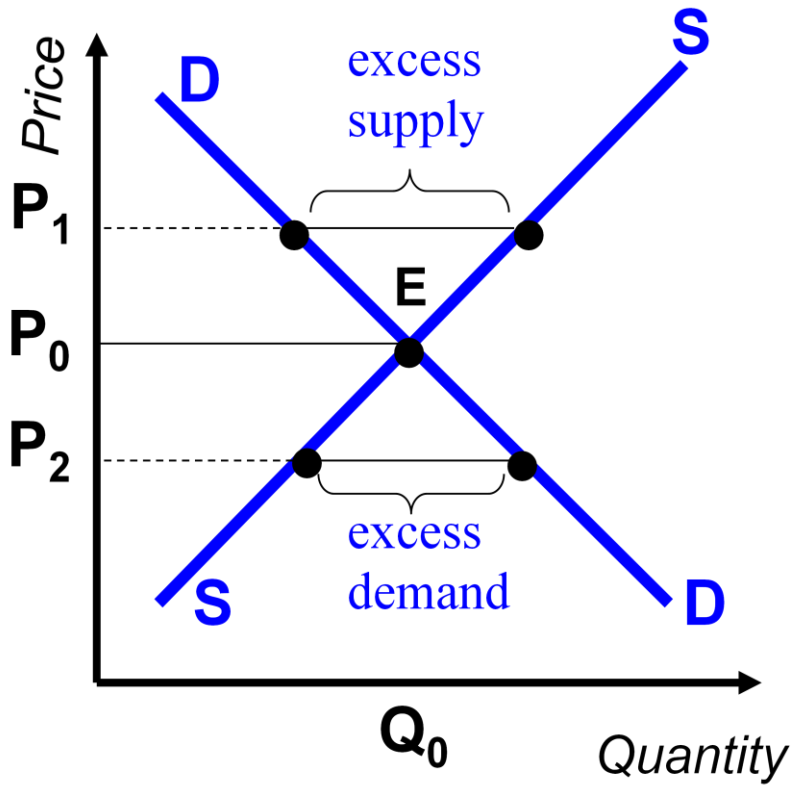
- **Market equilibrium**

Market equilibrium is at E_0 where quantity demanded equals quantity supplied with price P_0 and quantity Q_0.



Consumer surplus and producer surplus

If price were above P_0 there would be excess supply; producers wish to supply more than consumers wish to purchase



If price were below P_0 there would be excess demand; consumers wish to purchase more than producers wish to supply.

- **Demand Curve (a closer look)**

  How does the demand curve shift if:

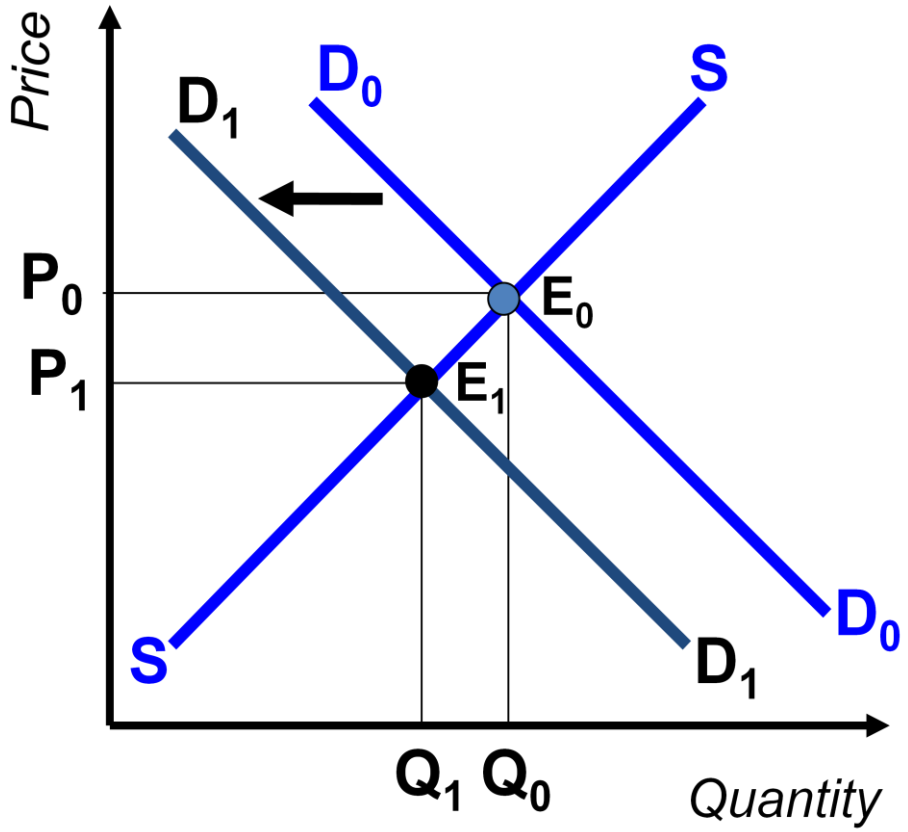
  - Consumer income increases
  - Consumer taste changes
  - The price of another (related) good changes

- Substitutes

  If two goods are substitutes a price increase for one good increases the demand for the other. e.g. tea & coffee. travel by bus & travel by metro.

- Complements

  If two goods are complements a price increase for one good decreases the demand for the other. e.g. tea & sugar. petrol & car.



If the price of a substitute good decreases ...

less will be demanded at each price.

The demand curve shifts from D_0D_0 to D_1D_1.

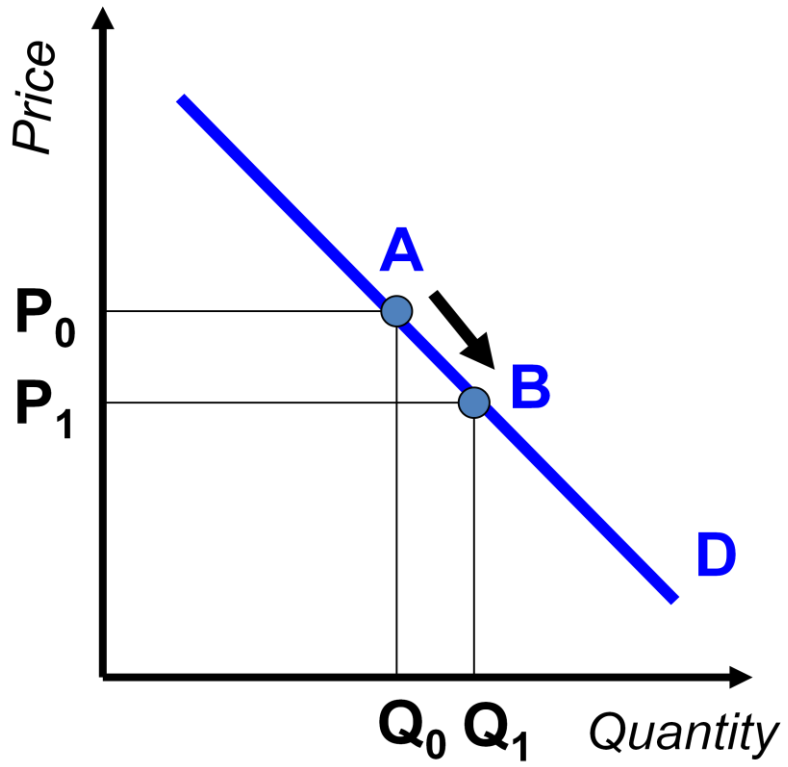
If price stayed at P_0 there would be excess supply.

So the market moves to a new equilibrium at E_1.

There are two ways in which demand may increase:

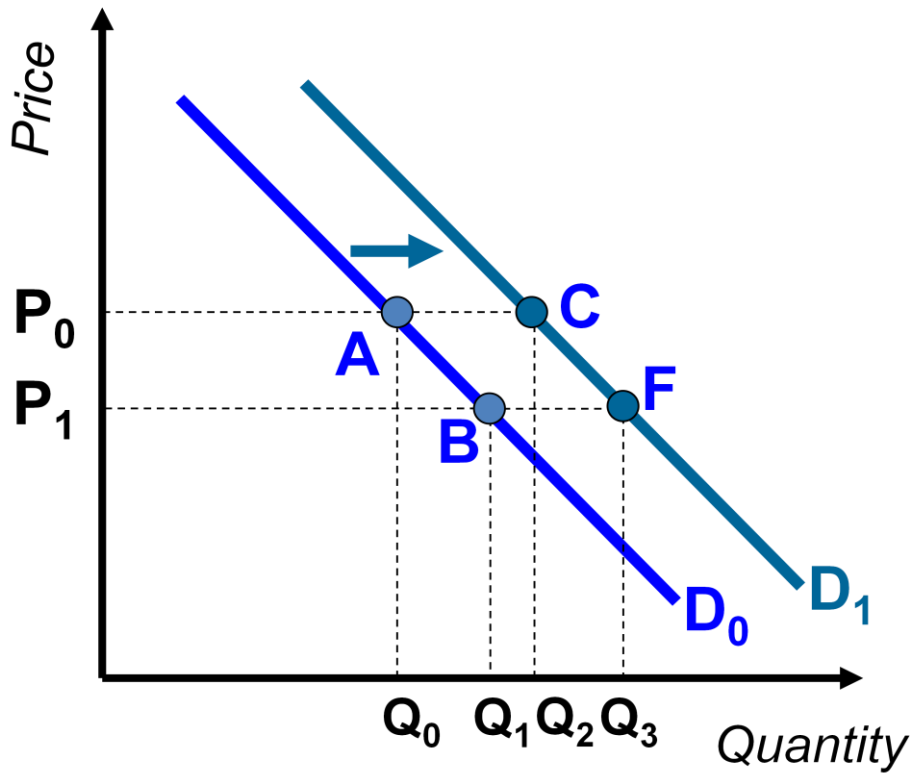
1)

- A movement along the demand curve from A to B
- represents consumer reaction to a price change
- could follow a supply shift



2)

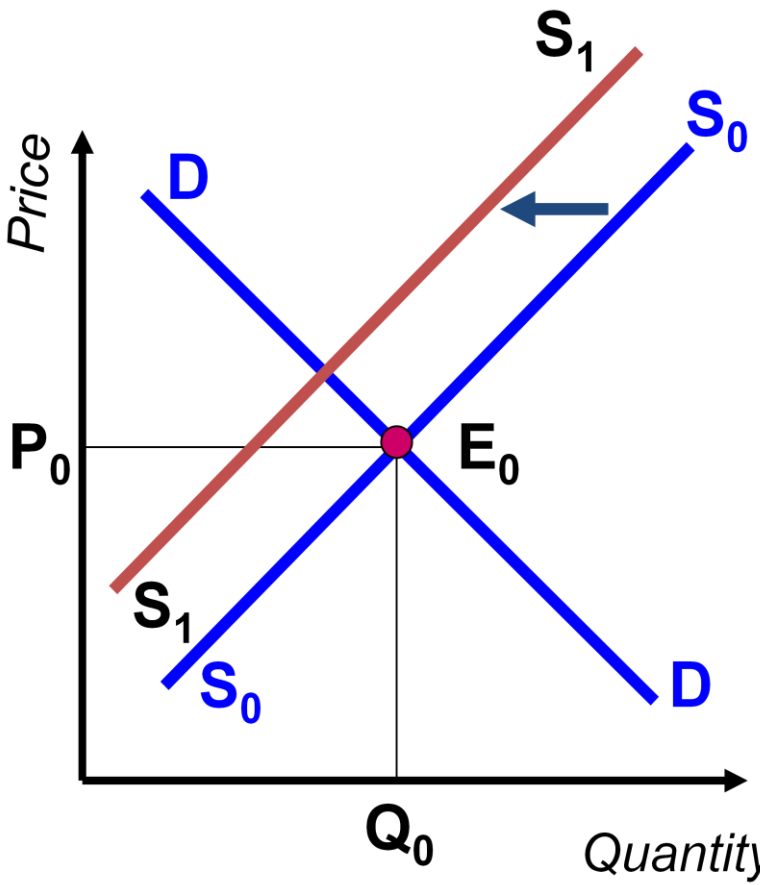
- A movement of the demand curve from D_0 to D_1
- leads to an increase in demand at each price
- e.g. at P_0 quantity demanded increases from Q_0 to Q_2: at P_1 quantity demanded increases from Q_1 to Q_3



- **Supply Curve (a closer look)**

  How does the supply curve shift (or change) if:

  - Production costs increases
  - Technology improves
  - Government regulation changes



Suppose safety regulations are tightened, increasing producers' costs

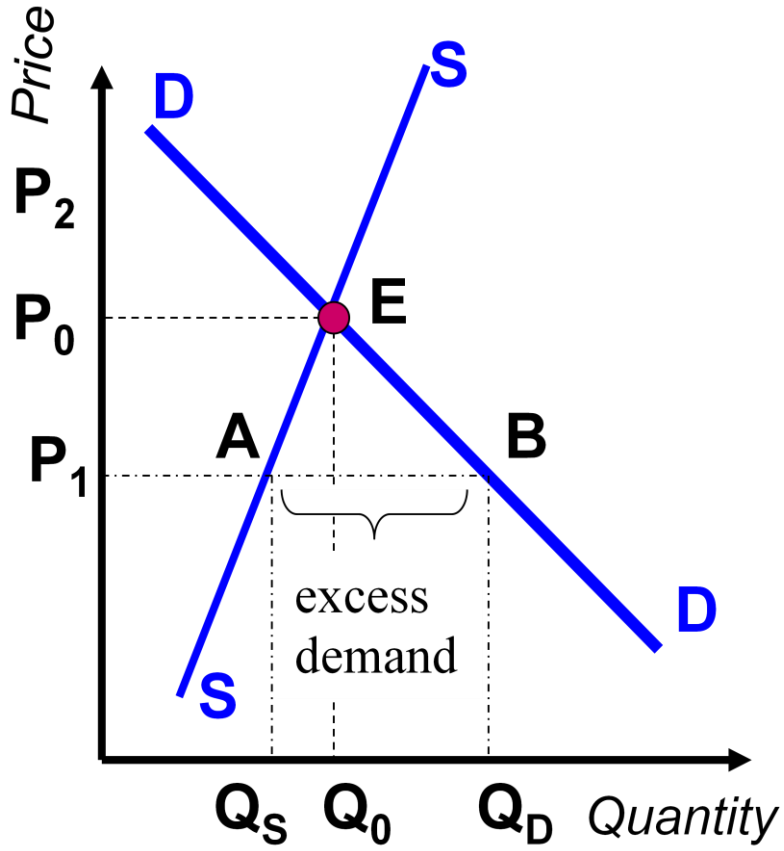
The supply curve shifts to S_1S_1

If price stayed at P_0 there would be excess demand

So the market moves to a new equilibrium at E_2

Suppose for some reason (disastrous harvest) the supply curve shifts to SS

Government may try to protect the poor, setting a price ceiling at P_1 which is below P_0, the equilibrium price level and the result is excess demand



RATIONING is needed to cope with the resulting excess demand

Is the allocation efficient?

What happens to consumer and supplier surplus?

- Note

  In practice, we cannot plot ex-ante demand curves and supply curves

  So we use historical data and the supposition that the observed values are equilibrium ones

  Since other things are often not constant, some detective work is required

  This is where our theory comes in useful.

- Looking back

  The market:

  - decides *how much* of a good should be produced
    - by finding the price at which the quantity demanded equals the quantity supplied
  - tells us *for whom* the goods are produced
    - those consumers willing to pay at least the equilibrium price
  - determines *what* goods are being produced
    - there may be goods for which no consumer is prepared to pay a price at which firms would be willing to supply

- **Shortcoming of Competitive Markets** (Market Failure)

In some cases the market fails to deliver the efficient outcome; we will return to study these situations later in the course. Some examples are:

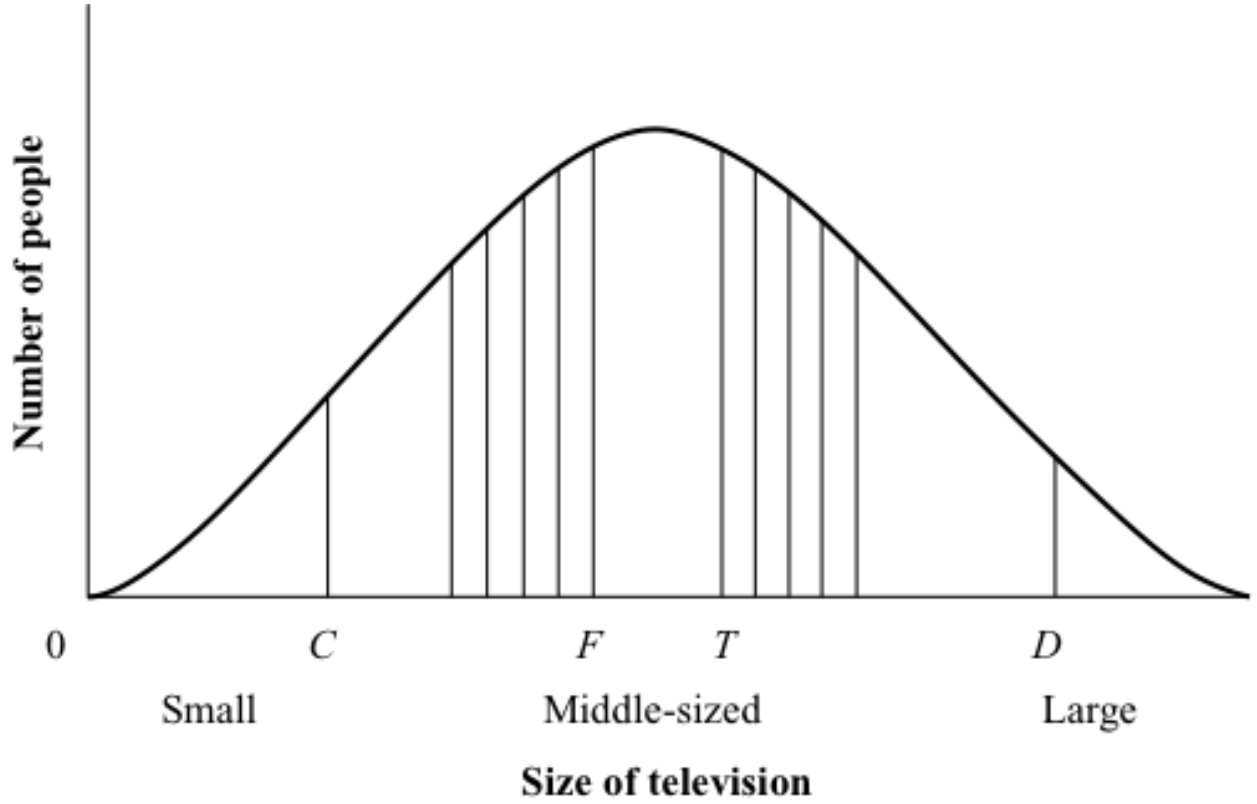
- In some cases, society might prefer a different income distribution from the one that is the result of market procedure
- Existence of externalities
- Assymetric information
- Social norms and standards might want to restirict the demand and supply of certain commodities

- **Non-Price Competition** (ML)

Most of the goods and services in real world are differentiated products.

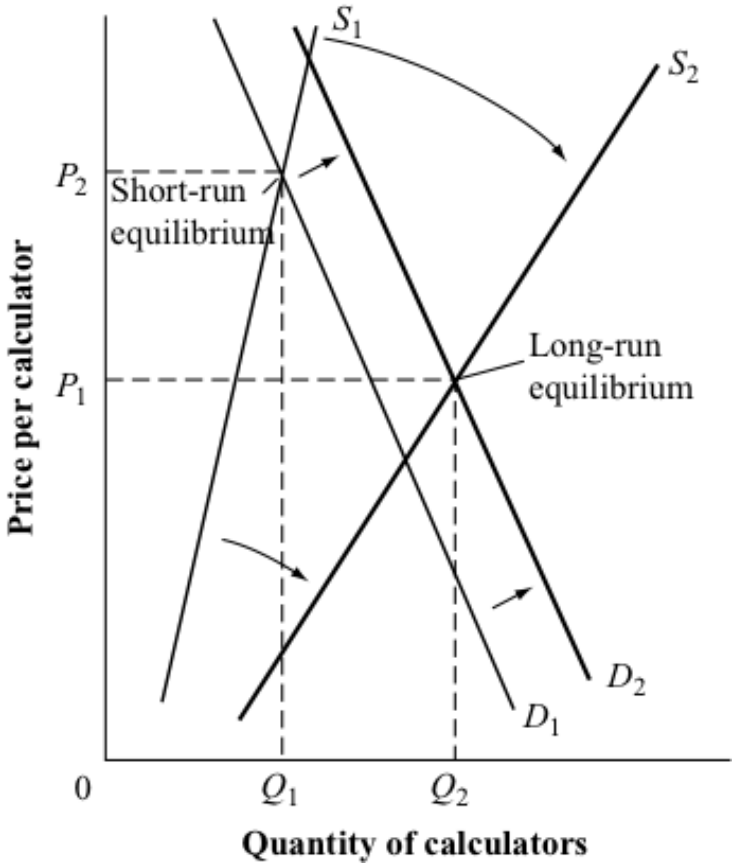
Consumers have different preferences toward different attributes of a product (size, colour, quality, ...).

Suppliers try to differentiate their products from their rival's in order to gain some market power considering consumer preferences and the range of products offered by others.



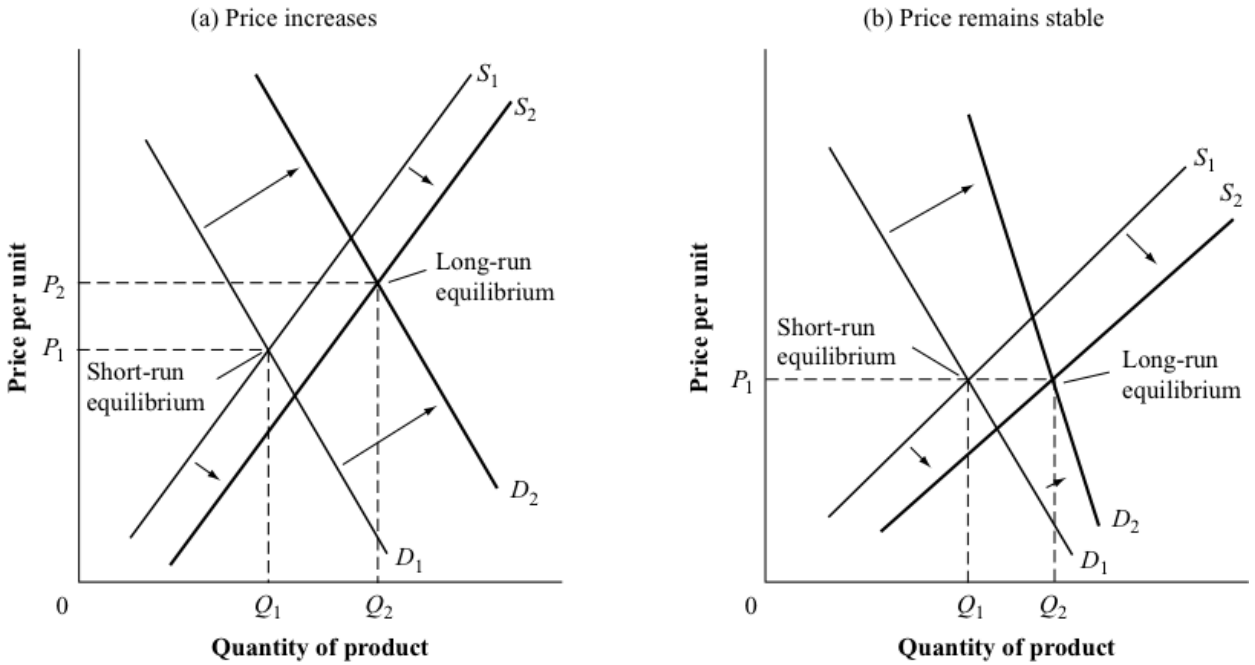
The free entry into the market is even more essential in this type of markets,

- **Competition in the Short-run and Long-run** (ML)



Both demand and supply change over the time

The firm's prediction of changes in long run affects her short as well as long term decisions



- **Paying Above Market Wages** (ML)

The demand-supply determines the equilibrium price of labor (wage) which clears the market.

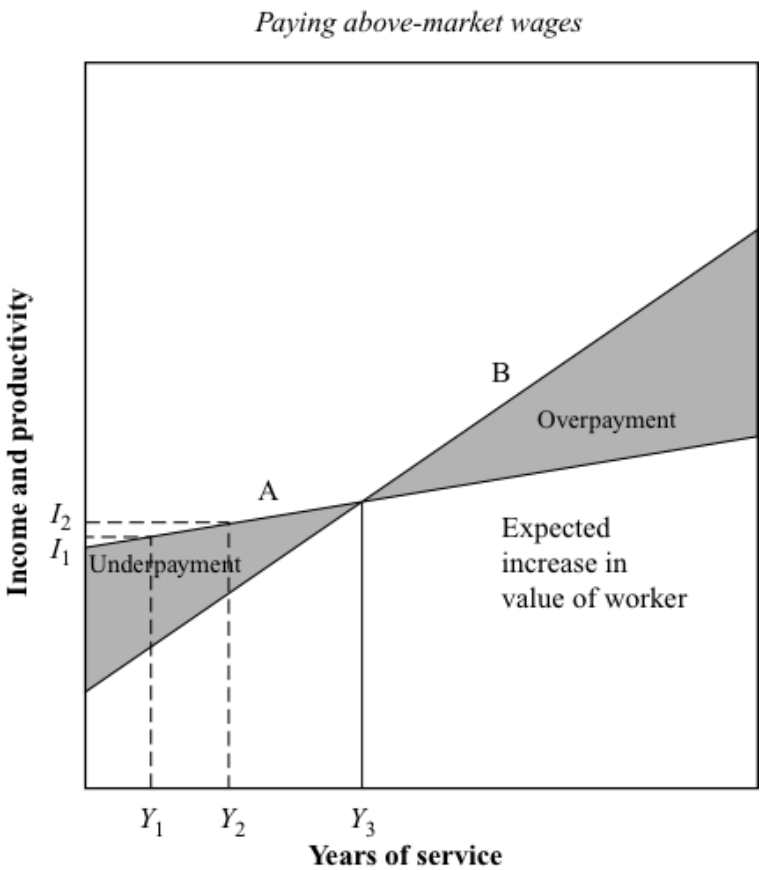
Why in practice some firms wish to pay more (Ford example)?

Is it because of the minimum legal wage (*involuntary unemployment* is an indication)?

NO; The minimum legal wage is usually below the equilibrium price (then the price floor is not important).

Then why paying more?

- Making the employers feel good about themselves (really!)
- Attracting more productive workers (Not all workers have the same productivity, in fact the workers are not homogenous)
- Greater loyalty, longer job tenure
    - Losing experienced workers is costly for the firm
    - Hiring process is also costly
    - When workers are paid the market wage, there is little cost
- Asking for working harder and better (increasing productivity)
- Removing workers' financial strains and the result more dedicated work
- Enabling employers to consider harsher punishments for lack of performance
- Overpayment might be a result of underpayment in early years of job


Paying above-market wages
Income and productivity
B
Overpayment
A
I_2
I_1
Underpayment
Expected
increase in
value of worker
Y_1
Y_2
Y_3
Years of service