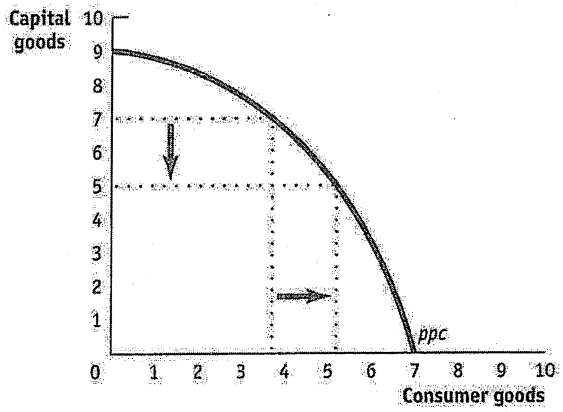
The Production Possibilities Curve

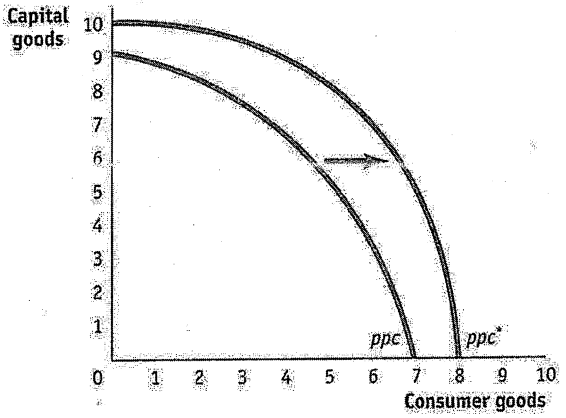
The production possibilities curve illustrates trade-offs and opportunity costs incurred as a result of scarce factors of production.

The concave shape indicates that the opportunity cost of producing more consumer/capital goods is ever increasing.

In the graph on top, an economy that is fully employing all of its available resources must sacrifice 2 units of capital goods in order to gain about 1 1/2 units of consumer goods.

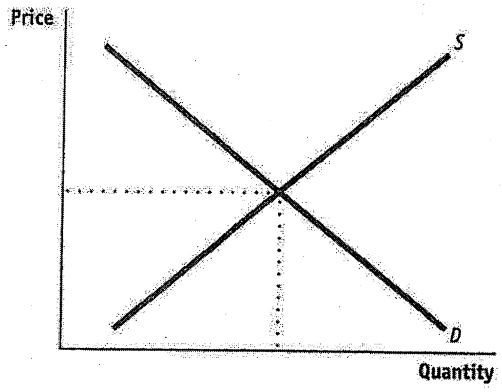
The bottom graph illustrates the effect of an increase in available factors of production, the quality of those factors of production, increased technology, or increased productivity.





Supply and Demand

The supply and demand model illustrates producers' willingness and ability to produce a good or service (supply) combined with consumers' willingness and ability to consume a good or service (demand). The intersection of these two functions determines the equilibrium price and the equilibrium quantity.



Changes in Demand

Δ in M.E.R.I.T. .:

Δ *D* .: Δ *P* & Δ *Q*

D right .: *P*↑ & *Q*↑

D left .: *P*↓ & *Q*↓

Changes in Supply

Δ in *N.I.C.E.J.A.G.T.* .:

Δ S .: Δ *P* & Δ *Q*

S right .: *P*↓ & *Q*↑

S left .: *P*↑ & *Q*↓

Demand Shifters

M.E.R.I.T.

M— market size

E— expected prices

R— related prices (complements and substitutes)

I— income

T— tastes

Supply Shifters

N.I.C.E.J.A.G.T.

as in, "Nice Jag, T!"

N— natural phenomenon

I— input prices

C— competition

E— expected prices

J— joint production prices (think beef and leather)

A— alternate production prices (think corn and wheat)

G— government taxes and subsidies

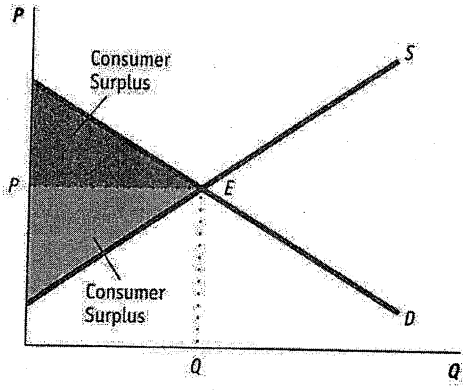
T—technology

Welfare Analysis

Total surplus is the sum of consumer and producer surplus. It represents the net gain to consumers and producers from trading in a market.

When a competitive market reaches equilibrium, total surplus is maximized. This is the most efficient outcome because there is no way to make some people better off without making other people worse off. Any alternative to the equilibrium outcome reduces total surplus and thus reduces efficiency.

For example, price controls, including price ceilings and floors, and quantity controls will lead to inefficiency. Imperfect competition will also result in a reduction in total surplus.



Taxes in a market will also lead to a reduction in total surplus.

An excise tax can be either a tax on sellers or a tax on buyers. If it is a tax on sellers, the supply curve shifts upward by the amount of the tax. If it is a tax on buyers, the demand curve shifts downward by the amount of the tax.

The burden of the tax is paid by both the buyers and the sellers, but not always in equal shares, depending on the elasticities of demand and supply.

Excise taxes have the benefit of generating tax revenue for the government.

Excise taxes typically reduce the number of transactions made between buyers and sellers, leading to a reduction in total surplus.

The loss in total surplus that is not offset by a gain in tax revenue is the deadweight loss resulting from a tax.