Market System

2 primary decision makers in market system:

Households (consumers)
economic unit of one or more persons that provide resources and purchase goods & services to satisfy material wants

Firms (suppliers)
organizations that employ resources and produce goods and services for profit

How does the market system work?
To answer this question we need to answer the following 4 fundamental questions:

1. What goods and services will be produced?
2. How will the goods and services be produced?
3. Who will get the goods and services?
4. How will the market system accommodate change?

Lets look at each question in turn, and we can begin to draw a picture of how the market works as a whole.

1. What goods and services will be produced?

Because firms are motivated by self-interest, firms produce only those goods that will generate profits. They won't produce goods that generate losses. So the goods and services produced will be those that generate profits.

Which goods and services are these?
How do firms know which goods and services generate profits? Consumer demand. Consumer sovereignty (demand) determines the types and quantities of goods to be produced given the scarce resources of the economy.

Consumers spend their income on the goods and services that they most want. In doing so, they SHOW producers what they want. These dollar votes let firms know (or estimate) which goods to produce, and how many, in order to make the most profit.

What happens if consumers demand a lot of CD burners, but no tape recorders? Then firms that produce tape recorders won't make any money and will go bankrupt.

Consumers' dollar votes determine which products survive and which ones fail. Ex. McDonalds creates a new low-fat burger (McLean) but people don't like the taste, so no one buys it after the first try. The dollar vote is very low, therefore, the product fails, McDonalds doesn't make it anymore because they will not make a profit but rather a loss if they produce McLeans.

So firms must decide what to produce within the set of goods and services that consumers want. Consumer preferences (dollar votes) make some goods profitable and others not. Therefore, to make a lot of money (profit), businesses listen to consumers.

The same is true for resource suppliers. (suppliers of land, labour, capital, etc.) Demand for resources (called derived demand) is derived from the demand for the products it can be used to produce.

Ex/ High demand for pizza

- ⇨ high demand for wheat, tomatoes, cheese and pizza chefs
- ⇨ farmers use their land to produce wheat and tomatoes and raise dairy cows
- ⇨ workers go to chef school and practice making pizza

2. How will goods and services be produced?

Resources are steered to those industries that have products consumers want.
Why?
Because: if those industries produce the goods that consumers want they must pay for resources to produce these goods. They won't pay for resources they won't use (i.e. resources that won't produce these goods), or resources that are inefficient.
Why? Because: firms want to make the highest profit possible. This means producing efficiently (using the least cost method to produce any given quantity)

The most efficient way to produce a good/service depends on: Available technology & prices of resources.

3. Who will get the goods and services?

- ⇨ Those who are willing and able to pay the equilibrium prices

The ability to pay, in turn, depends on the amount of income the consumer earns.
How much they earn depends on:

1. The resources they own (land, labour, etc.)
2. The prices those resources command in the market (rental rate on land, wage rate, etc.)

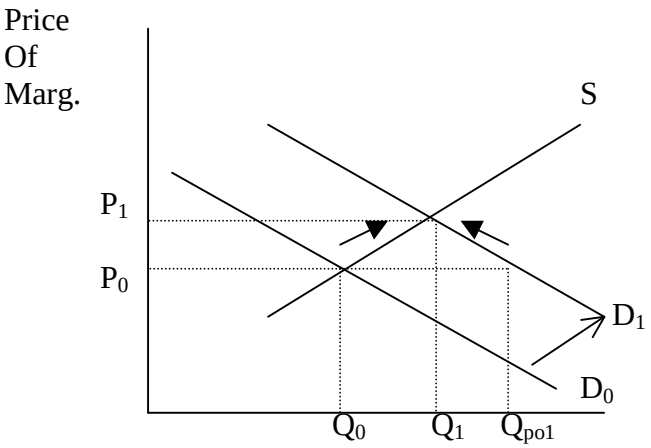
=>Notice how the whole market is inter-connected.
How the interconnection works should become more and more clear as we work through this chapter.

5. How will the system accommodate change?

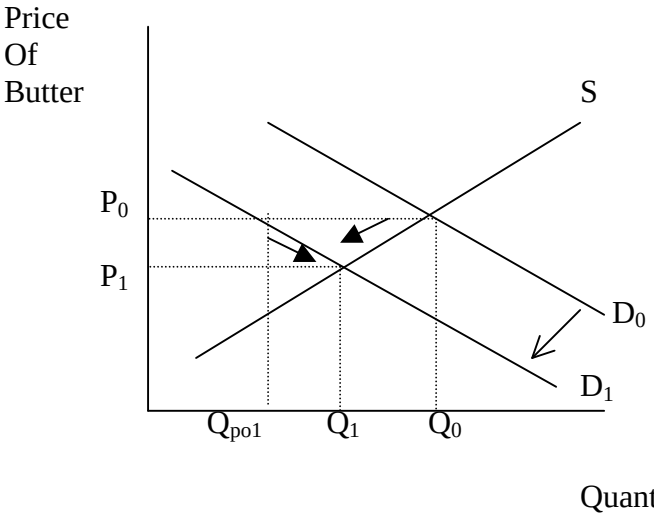
Can the market economy adjust to change? How does it deal with new technology, changes in consumer taste, etc.?

Ex/ Suppose consumer taste shifts, and people no longer want to eat butter, but prefer margarine instead. Will the market system be able to meet these changed demands and use resources efficiently?

Yes.
Prices act as a guide to the market economy. As demand for margarine rises, the price for margarine is pushed upwards. Firms know they can make a profit in that business, so more firms decide to enter into margarine production and/or increase margarine production.



Meanwhile, a decrease in the demand for butter will lower the price of butter. Therefore, firms see butter production as less profitable and few will wish to start making butter, and many will switch to producing margarine instead.



Producers reduce price of butter to compete so as to get rid of surplus butter
As price of butter falls, the quantity demanded increases a little at a time until a new equilibrium is reached.

So Ceteris Paribus

High Prices => high profits => more firms enter and stay in production of margarine
Low Prices => low profits => firms leave production of butter (don't enter)

Thus, the market system is a communications system, where the directing and guiding function of prices plays a key role.

We've seen how the market system determines what and how to produce, and who will get the goods. But another key and unique aspect of the market system is how it **promotes technological change**.

Suppose there are 2 firms that produce DVD players (Sony and Panasonic)

Now suppose that Sony discovers how to produce the same quality DVD players more cheaply. They can lower their price (because their costs are cheaper).

What will happen ff they lower the price of their DVD players?
Since the cost of their players will then be relatively cheaper than those of Panasonic, customers will prefer to buy Sony DVD players instead of Panasonic DVD players (CP).
Thus, Sony will make more profit, at the expense of Panasonic.

Therefore, firms have incentive to make technological advances so as to:

a. Make more profit (attract greater share of customers)
b. Keep up with competitors (keep high enough share of customers to stay in business)

In some cases, creation of new products and new production methods makes old products (and old firms) obsolete.

Ex/ Personal computers made electric typewriters nearly obsolete. Firms who specialized in making electronic typewriters lost their market position (lost customer demand) and either switched production or went out of business. This situation is called:

Creative Destruction – the hypothesis that the creation of new products and production methods simultaneously destroys the market power of existing monopolies.
Ex/ gas/natural gas and internal combustion engine made coal obsolete

Capital Accumulation

Technological advance makes necessary new capital goods (new machines and tools)

i.e. To make computers required many new tools and machines that were not needed for electronic typewriters

The market system has the resources necessary to produce these capital goods (tools and machines) but how will it be decided which ones to produce? The same as with consumer goods.

Owners of computer manufacturing firms demand tools and machines to make computer. Their dollar votes, their demand, makes it profitable for other firms to produce the capital goods (tools/equipment) the computer manufacturers require.

In Adam Smith's 1776 book, "The Wealth of Nations," he noted how the self-interest of firms (operating within the framework of a competitive market system) will , as though guided by an invisible hand, promote the interests of all of society.

Self interest causes firms and households to use scarce resources in the most efficient ways, and this efficiency benefits all of society.

Self interest also causes changes to meet societies wants (as we saw with the butter/margarine case) Businesses seeking to make higher profits (in their own interests) will produce margarine instead of butter and thereby meet society's increased demand.

Thus, the "invisible hand" ensures that when firms maximize profits, they also maximize society's output and income.

Market systems have many benefits. The three main ones are cited as:

1. Efficiency – Market system promotes efficient use of resources, guiding production to goods most wanted by society and producing with the most efficient techniques
2. Incentive – Encourages people to learn skills, to work hard and to innovate because higher skills and hard work and innovation lead to higher income and higher standards of living
3. Freedom – the market thrives on freedom of enterprise and choice. By choosing to do what you love best, you do it with greater energy. Thus, the economy prospers and you and society as a whole reap the greatest benefits.

Although the market system is an excellent mechanism for coordinating economic activity, it is not perfect.

Market Failure

Two ways in which the market system fails to achieve maximum social satisfaction are that it sometimes:

1. Produces the 'wrong' amounts of certain goods and services (i.e. produces too many chemicals, or too little education)

2. Fails to allocate resources to goods and services that are economically justified (i.e. national defense, lighthouses, etc)

These are two categories in which the market sometimes fails. The first type of market failure results in spill over costs or benefits. The second type of failure involves what are called public goods (we will get to these shortly.

Spill Over Costs

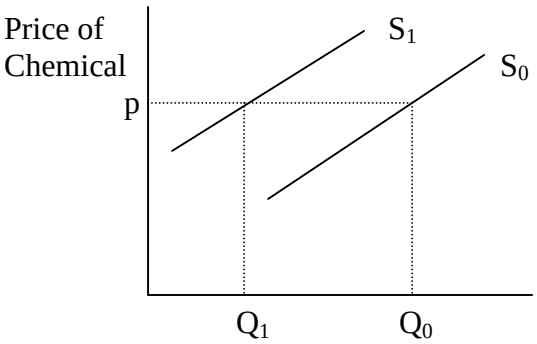
A cost imposed without compensation on third parties by the production or consumption of buyers and sellers.

Ex/ A chemical company may have some toxic waste to dispose of, and it dumps it in the river out back. That river becomes polluted, as does the shoreline. Fishers, swimmers and those who live near the river all suffer from the polluted water (it lowers their happiness). This is known as a spillover cost.

(the movie Erin Brockovich provides an extreme example of spill over costs in terms of medical bills)

What do spill over costs imply?

Remember, firms base their supply decision on the costs of production.



If the cost of cleaning up the pollution were not taken into account, firms would supply at S_0. But if the chemical company took into account the cost of cleaning up the polluted

water, if they were forced to pay for the clean up, then it would be more expensive for them to produce each unit and they would supply fewer units at any given price (you can think of it as charging more for any given quantity if you like)

Therefore, market failure, in the form of spillover costs, implies that the economy is allocating too many resources to the production of that good (in this case, chemicals)

How can the government intervene to correct for this over-allocation?
They can make the company pay the spillover costs (internalize the externality) either by:

1. Legislation (prohibit/limit/fine pollution)
2. Specific Tax (tax each unit of output such that it becomes like a cost to the firm)

Either of these would cause the supply curve to shift to S_1 from S_0

Spill over Benefits

Spill overs don't have to be negative

Spill over Benefits are benefits obtained without compensation by third parties from the production or consumption of sellers or buyers.

Ex/ Education - we all benefit directly from our own education, but others do as well.
If many people are educated, society as a whole will receive many benefits, including:

1. more diverse and skilled labour force
2. higher incomes (less gov't spending on welfare so lower taxes)
3. lower crime rates (lower gov't spending on police so lower taxes)

Spill over benefits imply an under allocation of resources to the product (market fails to allocate anough to education.

How can the Government correct for this?

1. Subsidize consumers (ex/ interest free student loans, grants and bursaries)
2. Subsidize suppliers (ex/ supplement university budgets with gov't money)
3. Provide goods via Gov't (ex/ gov't pays for and runs high school and elementary)

The second category of market failure that we discussed earlier involves public goods.

Public Goods and services

are those which everybody can use, but which we can't practically sell to individual buyers. Ex/ national defense, light houses, etc.

Exclusion Principle – the ability to exclude those people, who do not pay for a product, from receiving its benefits.

Public goods are not subject to the exclusion principle. Everyone can use them, we can't stop anyone from using them. Ex/ can't stop you from benefiting from National Defense.

Ex/ Lighthouse on a dangerous rocky coast.
It is too expensive for any one ship/person to pay for a lighthouse on one rocky coast. The benefits to the single ship are too small compared to the costs. But the construction of the light house has enough benefits to many ships (fewer ship wrecks) to make it economically justifiable to build. However, once it is built, there is no way to exclude any single ship from using the light house, even if they did not contribute to building it.

This is called the **free rider** problem. We cannot obtain payment from all who use a public good, because we cannot exclude them from its use if they do not pay. And why would they pay if they don't have to?

Because the light house is not profitable for a single ship or firm to build, society under allocates resources to it.

Quasi-Public Goods

Goods to which the exclusion principle could apply, but that have such a large spill over benefit that the government sponsors its production to prevent under allocation of resources to it.

Ex/ education, highway systems, police and fire protection, museums, sewage and garbage disposal, etc.

These could all be priced and provided by private firms through the market system, but all have substantial spill over effects and therefore resources would be under allocated to them.

Reallocation Process

In order to correct for market failure, the gov't reallocates resources

1. Tax households so it lowers their income and lowers their demand for many other goods/services
2. Tax firms, especially those with spillover costs
3. Spends tax money on Public Goods and Quasi-public goods

See Circular Flow model on p.91 of text