



ECON 101

# Business Club

Finance Team  
2020

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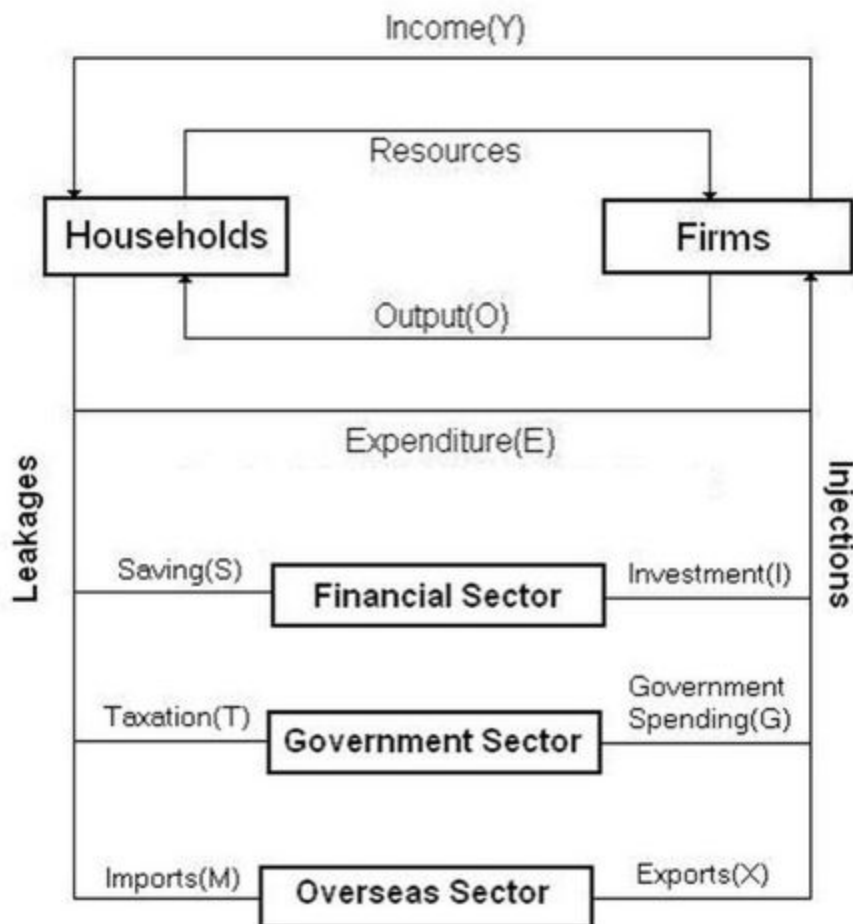
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## 1. Introduction

- Economics is a social science concerned with the production, distribution, and consumption of goods and services. It studies how individuals, businesses, governments, and nations make choices on allocating resources to satisfy their wants and needs, trying to determine how these groups should organise and coordinate efforts to achieve maximum output.
- Economics can generally be broken down into macroeconomics, which concentrates on the behavior of the aggregate economy, and microeconomics, which focuses on individual consumers and businesses.
- Classical economists assume that the most important factor in a product's price is its cost of production.
- Neoclassical economists argue that the consumer's perception of a product's value is the driving factor in its price.
- They call the difference between actual production costs and retail price the economic surplus
- One of the key early assumptions of neoclassical economics is that utility to consumers, not the cost of production, is the most important factor in determining the value of a product or service.

## 2. Circular Flow of Income



The circular flow of income and spending shows connections between different sectors of an economy

- It shows flows of goods and services and factors of production between firms and households

Businesses produce goods and services and in the process of doing so, incomes are generated for factors of production (land, labour, capital and enterprise) – for example wages and salaries going to people in work.

Leakages (withdrawals) from the circular flow -

Not all income will flow from households to businesses directly. The circular flow shows that some part of household income will be:

- Put aside for future spending, i.e. savings (S) in banks accounts and other types of deposit
- Paid to the government in taxation (T) e.g. income tax and national insurance
- Spent on foreign-made goods and services, i.e. imports (M) which flow into the economy

Withdrawals are increases in savings, taxes or imports so reducing the circular flow of income and leading to a multiplied contraction of production (output)

Injections into the circular flow are additions to investment, government spending or exports so boosting the circular flow of income leading to a multiplied expansion of output.

1. Capital spending by firms, i.e. investment expenditure (I) e.g. on new technology
2. The government, i.e. government expenditure (G) e.g. on the NHS or defence
3. Overseas consumers buying Indian goods and service, i.e. India's export expenditure (X)
4. An economy is in equilibrium when the rate of injections = the rate of withdrawals from the circular flow.

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### 3. Scarcity and Opportunity Cost

At the core of economics is the idea that our world is a place plagued with scarcity — that is, we do not have all the resources we want. As a result, we must make choices. When we make a choice, that choice necessarily means that we have to give up something. The “something” we give up is called opportunity cost.

Economists define opportunity cost as the next best alternative or the highest valued alternative to the choice that was made. If we choose to produce a good using a resource, the opportunity cost of producing that good is the highest valued alternative use of that resource.

**Economics in context of scarcity** — The study of how individuals and society make decisions about how to use scarce resources to satisfy unlimited material wants.

**Scarcity** — The condition that exists when there are not enough resources to satisfy all the wants of individuals or society.

**Choices** — The decisions individuals and society make about the use of scarce resources.


**Opportunity Costs** — The next highest valued alternative that is given up when a choice is made.

### 4. Monetary Measures

#### (A) **GDP - Gross Domestic Product**

Total monetary value of all the final goods and services produced within the geographic borders of a country in a specific period of time

GDP tells about the economic condition of a country, used to estimate, the size of an economy and the growth rate



GDP includes all private and public consumption, government outlays, investments, additions to private inventories, paid-in construction costs, and the foreign balance of trade (exports are added, imports are subtracted).

There are several types of GDP measurements:


- Nominal GDP is the measurement of the raw data
- Real GDP takes into account the impact of inflation and allows comparisons of economic output from one year to the next and other comparisons over periods of time
- GDP growth rate is the increase in GDP from quarter to quarter
- GDP per capita measures GDP per person in the national populace; it is a useful way to compare GDP data between various countries.

The balance of trade is one of the key components of a country's (GDP) formula. GDP increases when the total value of goods and services that domestic producers sell to foreigners exceeds the total value of foreign goods and services that domestic consumers buy, otherwise known as a trade surplus. If domestic consumers spend more on foreign products than domestic producers sell to foreign consumers—a trade deficit—then GDP decreases.

## **(B) GNP - Gross National Product**

Total monetary value of all the final produced goods and services “OWNED” by a country and its citizens, in a specific period of time.

If country A owns a manufacturing unit in country B, the total monetary value of the final goods and services produced in the manufacturing unit will be counted in the GNP of A, and GDP of B.



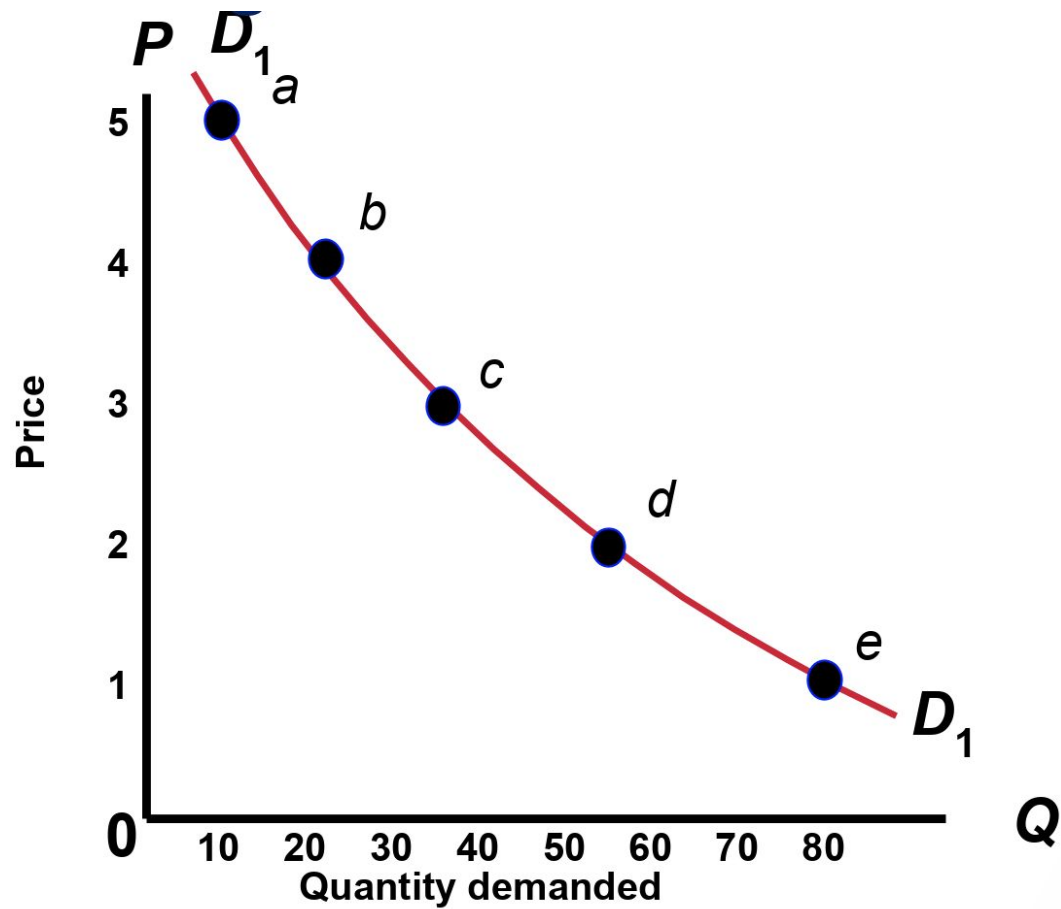
GNP measures the total monetary value of the output produced by a country's residents. Therefore, any output produced by foreign residents within the country's borders must be excluded in calculations of GNP, while any output produced by the country's residents outside of its borders must be counted.

GNP, like GDP, does not include intermediary goods and services to avoid double-counting since they are already incorporated in the value of final goods and services.

GNP and GDP are very closely related concepts, and the main differences between them comes from the fact that there may be companies owned by foreign residents that produce goods in the country, and companies owned by domestic residents that produce goods for the rest of the world and revert earned income to domestic residents.



## 5. Demand



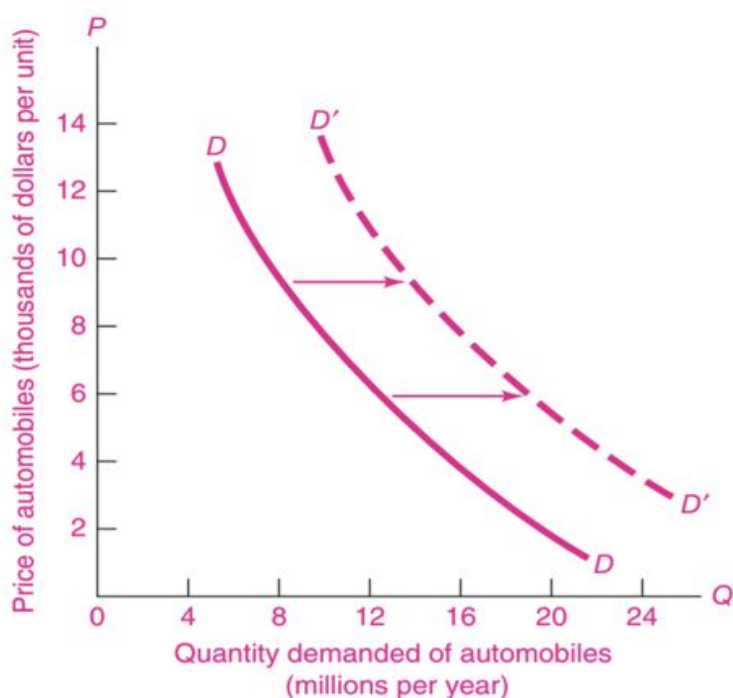
- The demand curve is a graphical representation of how the quantity demanded of a commodity changes with change in its price.
- It follows the “Law of Demand”, which states that the quantity demanded of a commodity falls as its price increases.

### Factors Affecting Demand -

As elements underlying demand change, the demand for a commodity is affected. Here we see the effect of rising average income, increased population, and lower gasoline prices on the demand for automobiles. We call this shift of the demand curve an increase in demand.

When there are changes in factors other than a good's own price which affect the quantity purchased, we call these changes shifts in demand. Demand increases (or decreases) when the quantity demanded at each price increases (or decreases).

Do not confuse a change in demand (which denotes a shift of the demand curve) with a change in the quantity demanded (which means moving along, or moving to a different point, on the same demand curve after a price change).



### Price Elasticity of Demand -

There exists a definite relationship between the market price of a good and the quantity demanded of that good, other things held constant. This relationship between price and quantity bought is called the demand schedule, or the demand curve.

- When a 1 percent change in price calls forth more than a 1 percent change in quantity demanded, the good has price-elastic demand. For example, if a 1 percent increase in

price yields a 5 percent decrease in quantity demanded, the commodity has a highly price-elastic demand.

- When a 1 percent change in price produces less than a 1 percent change in quantity demanded, the good has price-inelastic demand. This case occurs, for instance, when a 1 percent increase in price yields only a 0.2 percent decrease in demand.
- One important special case is unit-elastic demand, which occurs when the percentage change in quantity is exactly the same as the percentage change in price. In this case, a 1 percent increase in price yields a 1 percent decrease in demand.

## Factors Affecting Price Elasticity -

Now that you are familiar with the coefficient of the price elasticity of demand, let us understand the factors that affect the elasticity of demand.

### 1. Number of Substitutes Available -

If there are several substitutes or brands available for a product, then the elasticity of demand for the product will be high because consumers can shift from one brand to another depending on the change in price. Chocolates, for instance, is a good example of substitutes. Consumers can choose between several brands of chocolates.

### 2. Price of Product in Relation to Income -

Now when a household's income changes, the demand for goods and services also varies in response to the income. Hence, the demand for products and services becomes elastic.

### 3. Cost of Substitution -

In some cases, the result of changing from one brand to another may be quite high. For instance, if a certain cable service has a lock-in period of deposit, then an existing consumer **cannot** change to another service, although inexpensive, without losing the deposit. Hence, the demand becomes inelastic.

### 4. Brand Loyalty -

Sometimes, consumers are loyal to a specific product. In such cases, the price change in that product will not affect its associated demand. Brand loyalty, therefore, makes the demand inelastic.

### 5. Necessary Goods -

Necessary goods such as medicines and petrol usually have an inelastic demand. As consumers have to purchase these goods irrespective of the change in price, the demand remains unresponsive

## Exceptions to the Law of Demand -

### 1. Giffen Goods -



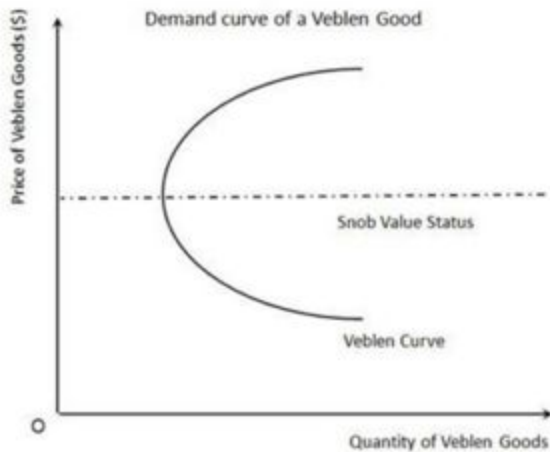
A Giffen good is a low income, non-luxury product that defies standard economic and consumer demand theory. Demand for Giffen goods rises when the price rises and falls when the price falls. In econometrics, this results in an upward-sloping demand curve, contrary to the fundamental laws of demand which create a downward sloping demand curve

In the case of Giffen goods, the income effect can be substantial while the substitution effect is also impactful. With Giffen goods, the demand curve is upward sloping which shows more demand at higher prices. Since there are few substitutes for Giffen goods, consumers continue to remain willing to buy a Giffen good when the price rises.

Giffen goods are usually essential items as well which then incorporates both the income effect and a higher price substitution effect. Since Giffen goods are essential, consumers are willing to pay more for them but this also limits disposable income which makes buying slightly higher options even more out of reach. Therefore, consumers buy even more of the Giffen good.

Overall, both the income and substitution effects are at work to create the unconventional supply and demand results.

## 2. Veblen Goods -

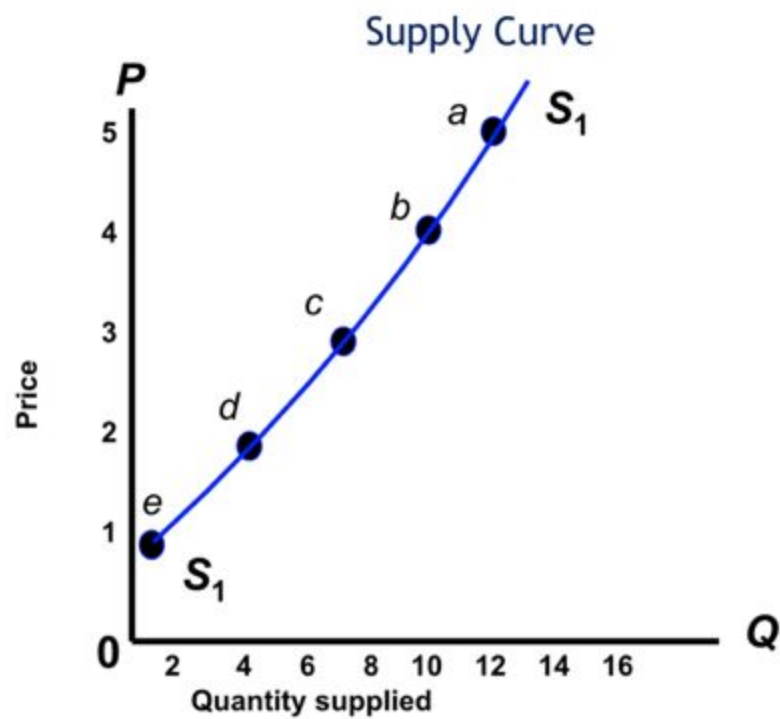


A Veblen good is a good for which demand increases as the price increases, because of its exclusive nature and appeal as a status symbol. A Veblen good has an upward-sloping demand curve, which runs counter to the typical downward-sloping curve. However, a Veblen good is generally a high-quality, coveted product, in contrast to a Giffen good, which is an inferior product that does not have easily available substitutes.

The increase in demand for a Veblen good reflects consumer tastes and preferences, unlike a Giffen good, where higher demand is directly attributable to the price increase. The term is named after the American economist Thorstein Veblen, who is best known for introducing the term “conspicuous consumption.”

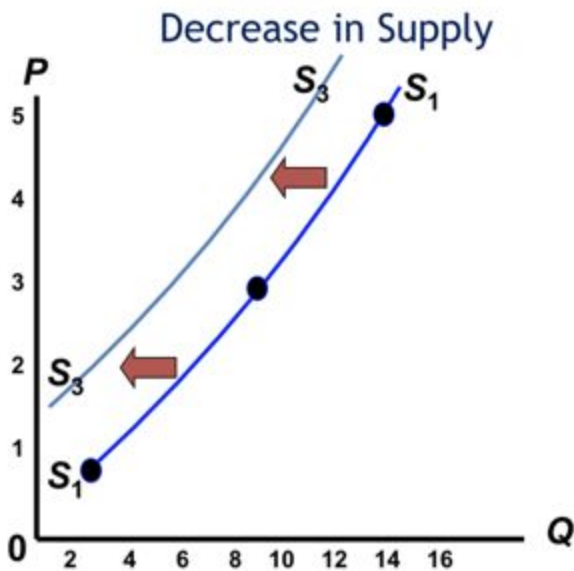
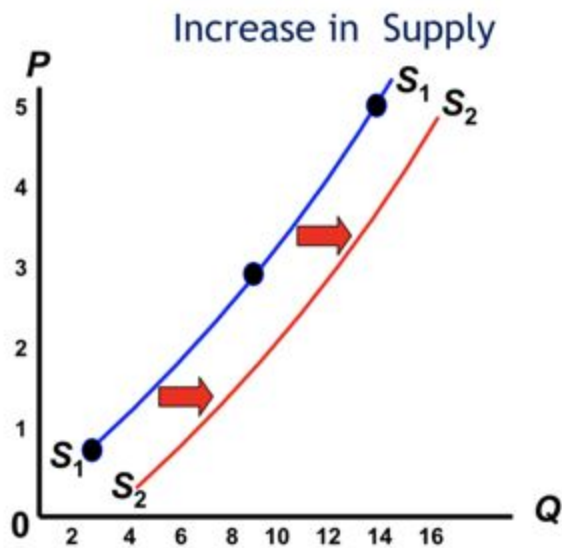
Veblen goods are fairly commonplace, unlike Giffen goods which are elusive and quite difficult to identify. Very expensive products – such as designer jewellery, pricey watches, and luxury cars – that are marketed as being “exclusive,” or which convey the appearance of success, can be classified as Veblen goods. Veblen goods are generally targeted at affluent individuals, have a very strong brand identity that is synonymous with luxury and are far more likely to be sold in upscale boutiques than in common department stores.

## 6. Supply



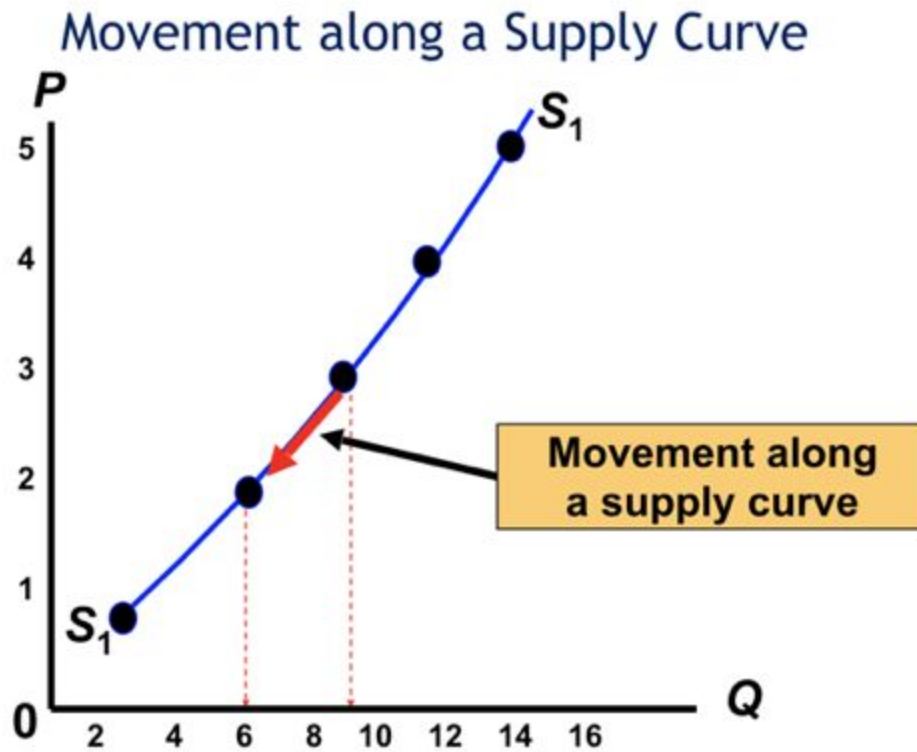
- The various amounts of a product that producers are willing and able to supply at various prices during some specific period is called “Supply”
- Law of Supply - “Positive relationship between the price and quantity supplied”

## Changes in Supply -



- Represented as a shift of the supply curve, caused by changes in determinants of supply other than price like input price, technology, weather, expectations, number of sellers.
- When Ceteris Paribus violated, the “supply” curve as a whole shifts, there is no “along” the curve movement

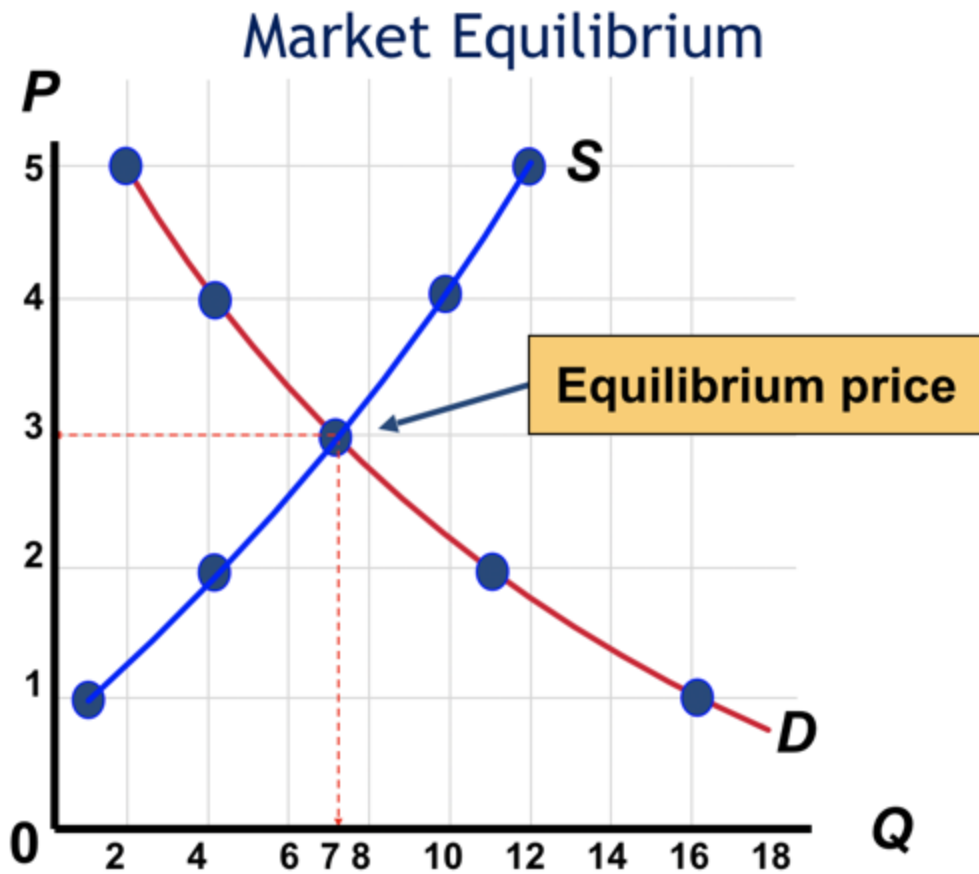
## Changes in Quantity Supplied -



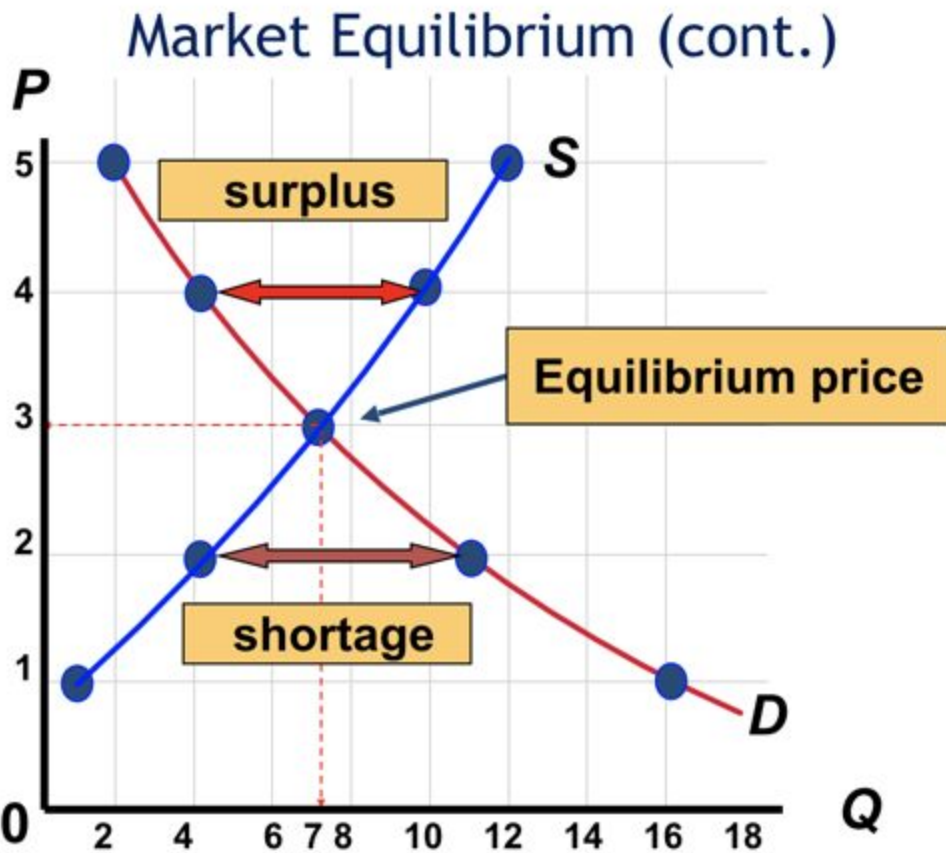
- Caused by changes in supply only
- Results in movement along the curve, rather than the shift of the whole curve
- Valid when “Ceteris Paribus” is not violated



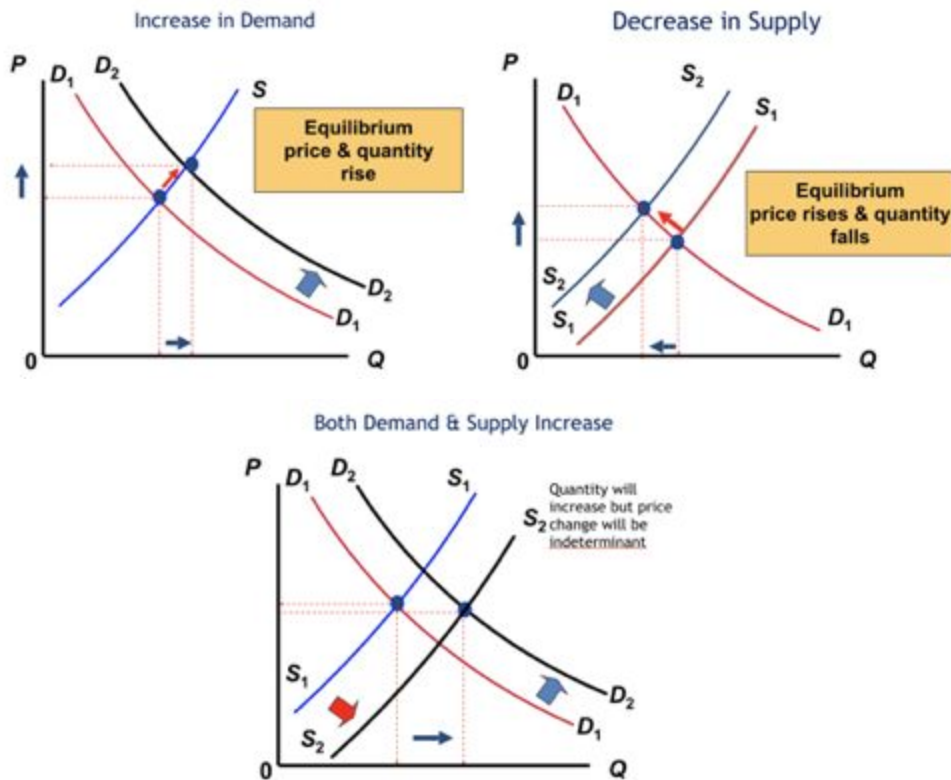
## 7. Market Equilibrium



- Occurs when the buying decisions of households and the selling decisions of producers are equated
- Determines the equilibrium price and equilibrium quantity bought and sold in the market, the point of intersection of the supply and demand curves



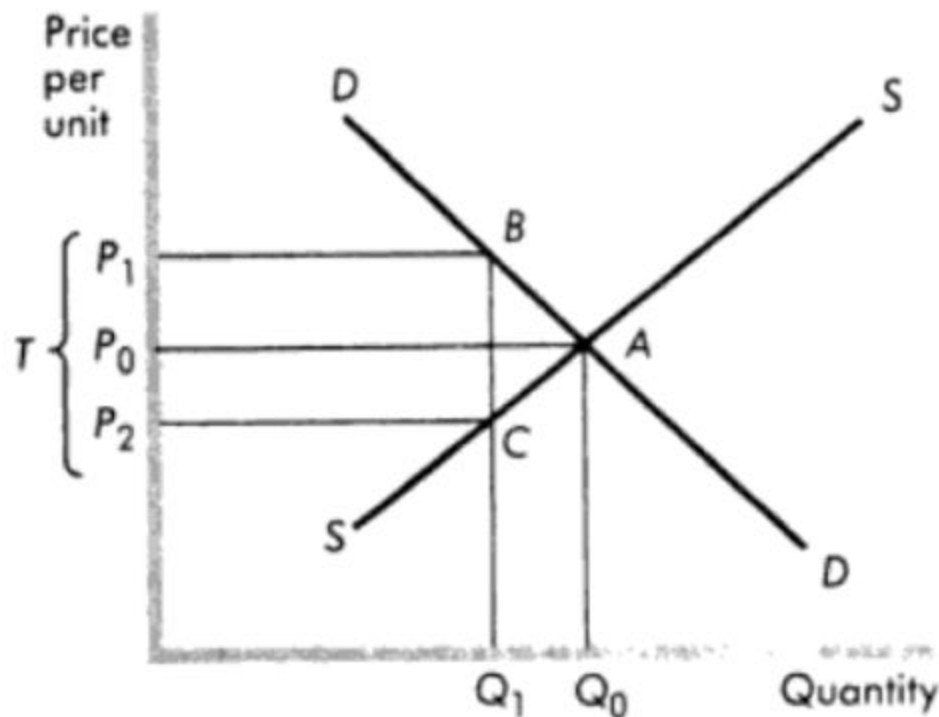
- Surplus : When supply exceeds demand, Can happen when there is overproduction of a good
- Shortage: When demand exceeds supply, Can happen when the consumers demand a good and the supplier cannot fulfill the demand in the short run



- If **demand increases**, equilibrium quantity and price, **both will rise**
- If there is a **decrease in supply**, equilibrium **quantity will fall** but **equilibrium price will rise**
- If both demand and supply increase, **price change is indeterminate** but **quantity demanded rises**

## 8. Taxes, Tariffs and Subsidies -

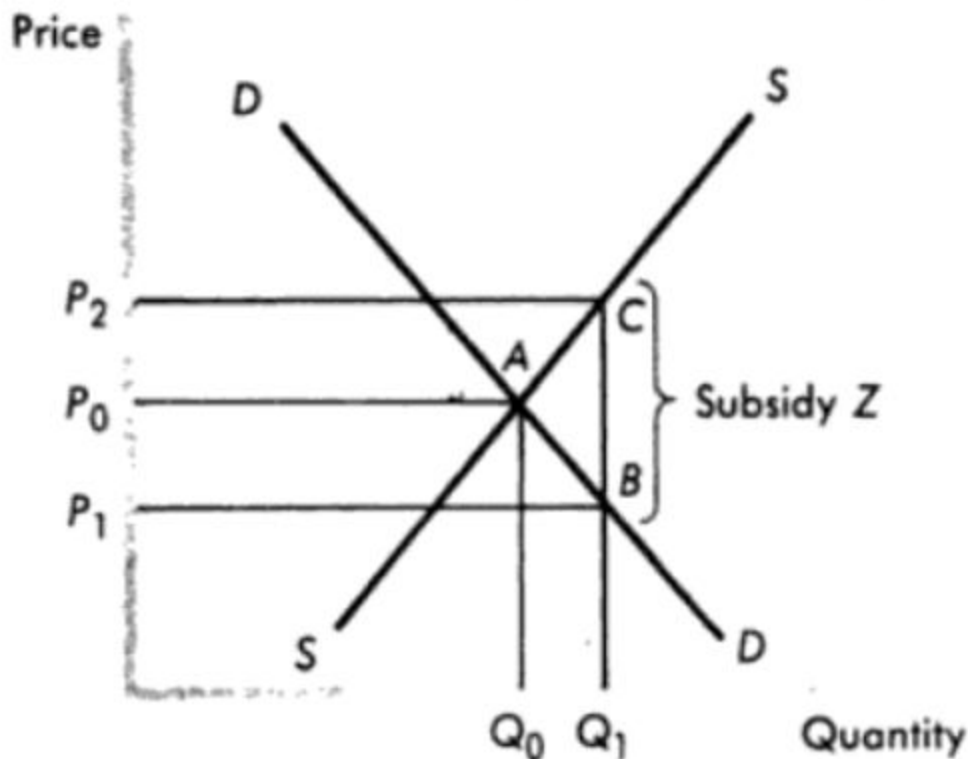
### Excise Tax -



- Excise tax or “Per Unit Tax” is the tax levied on a unit good or service purchased
- Excise Tax = Price Buyers Pay - Price sellers keep
- The buyers move up the demand curve as the price increases for the buyers, whereas the sellers move down the supply curve, as the price they ultimately keep decreases to form a wedge of height “T” which is the excise tax
- The difference between  $P_1$  and  $P_2$  gives the amount collected by the government in the form of excise tax,  $T = P_1 - P_2$
- At the price  $P_1$  the quantity demanded is  $Q_1$ , and at the price  $P_2$ , the quantity supplied is again  $Q_1$ , thus equilibrium is still satisfied
- The equilibrium quantity decreases, the buyers pay more and the suppliers get less, the difference is the excise tax

## Subsidies -

- Here, Buyers pay less and Suppliers get more
- Equilibrium quantity shifts towards right, the case is just opposite to that of **Excise Tax(per unit tax)**
- The difference gives the “subsidy”



## Import Tariffs-

- Consider a commodity produced and consumed domestically as well as traded in the world market
- Consider that the commodity is sold at the same price  $P_f$ , both nationally and internationally
- In the Tariffs curve, initially the commodity is traded at price  $P_f$ , note that both the supply and demand curve are domestic, initial quantity demanded is DF, and initial quantity supplied is DE, the difference EF is the imports initially

- The government of the country raises the domestic price from  $P_f$ (Initial Price) to  $P_d$
- The difference gives us the tariff imposed per unit of import
- “BC” now gives the new imported quantity
- Thus, by the graphs, the imports have fallen, and the government earns revenues equal to the area of “BCHG”

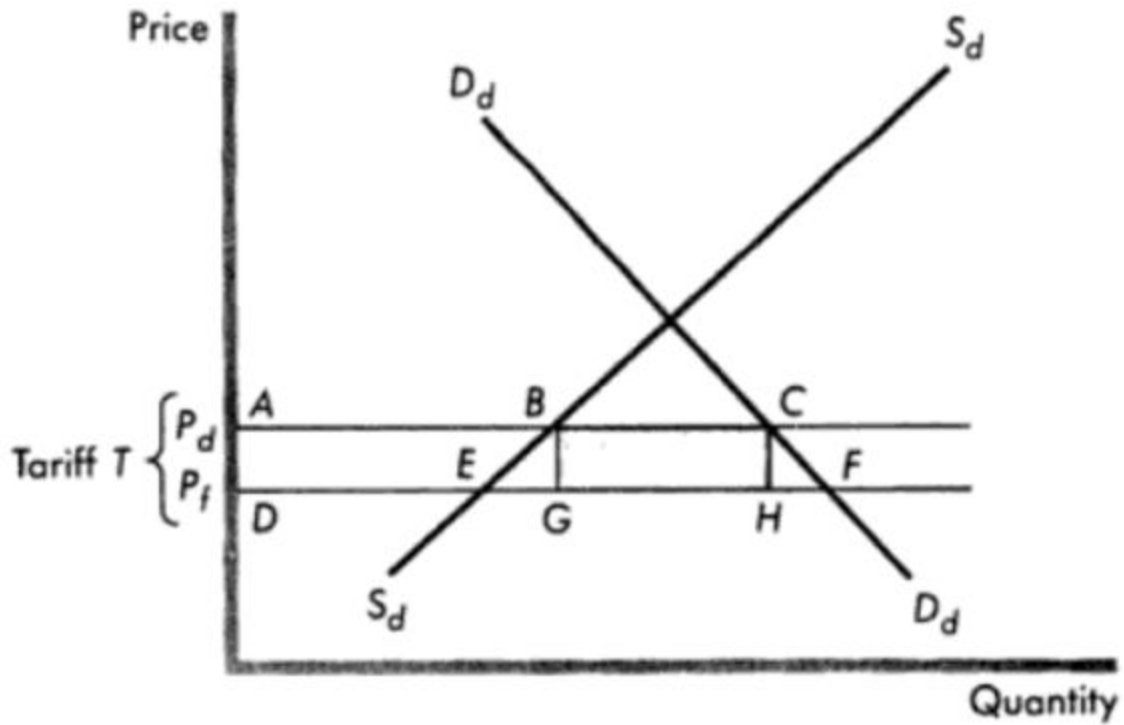
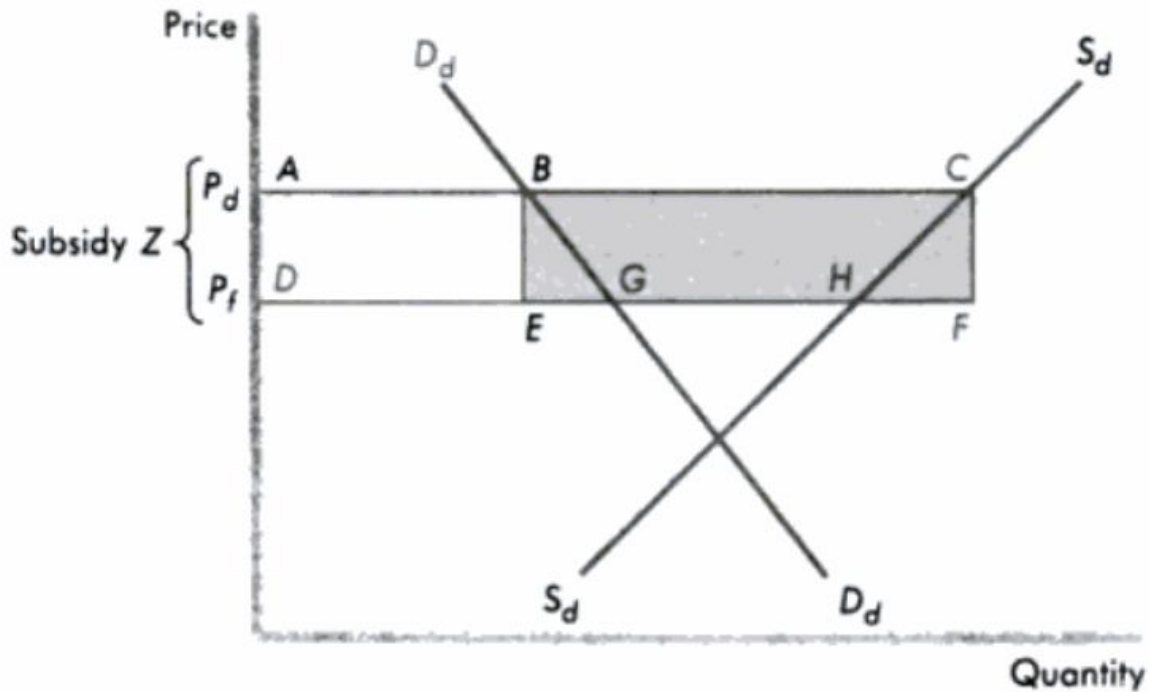


FIGURE 2.15 Effect of an export subsidy.



### Export Subsidies -

- Assume a similar setup as in the Tariffs' case, but in this case, there is a surplus in the quantity ( Supply > Demand)
- Imposed by the governments to boost exports
- Initially the quantity demanded was "DG" and quantity supplied was "DH", finally if the international price is raised from  $P_f$  to  $P_d$ , the quantity being exported increases from "GH" at a price  $P_f$ , to finally "BC" at a price  $P_d$
- The difference between  $P_d$  and  $P_f$  gives the subsidy given by the government per unit good exported
- The area BCEF gives the amount of money the government has to spend to give the subsidy

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## 9. Inflation -

### **Causes of Inflation**

Rising prices are the root of inflation, though this can be attributed to different factors. In the context of causes, inflation is classified into three types: Demand-Pull inflation, Cost-Push inflation, and Built-In inflation.

### **Demand-Pull Effect**

Demand-pull inflation occurs when the overall demand for goods and services in an economy increases more rapidly than the economy's production capacity. It creates a demand-supply gap with higher demand and lower supply, which results in higher prices. For instance, when the oil producing nations decide to cut down on oil production, the supply diminishes. It leads to higher demand, which results in price rises and contributes to inflation.

Additionally, an increase in money supply in an economy also leads to inflation. With more money available to individuals, positive consumer sentiment leads to higher spending. This increases demand and leads to price rises. Money supply can be increased by the monetary authorities either by printing and giving away more money to the individuals, or by devaluing (reducing the value of) the currency. In all such cases of demand increase, the money loses its purchasing power.

### **Cost-Push Effect**

Cost-push inflation is a result of the increase in the prices of production process inputs. Examples include an increase in labor costs to manufacture a good or offer a service or increase in the cost of raw material. These developments lead to higher cost for the finished product or service and contribute to inflation.


### **Built-In Inflation**

Built-in inflation is the third cause that links to adaptive expectations. As the price of goods and services rises, labor expects and demands more costs/wages to maintain their cost of living. Their increased wages result in higher cost of goods and services, and this wage-price spiral continues as one factor induces the other and vice-versa.

### **The Consumer Price Index**

The CPI is a measure that examines the weighted average of prices of a basket of goods and services which are of primary consumer needs. They include transportation, food and medical





care. CPI is calculated by taking price changes for each item in the predetermined basket of goods and averaging them based on their relative weight in the whole basket. The prices in consideration are the retail prices of each item, as available for purchase by the individual citizens. Changes in the CPI are used to assess price changes associated with the cost of living, making it one of the most frequently used statistics for identifying periods of inflation or deflation. The U.S. Bureau of Labor Statistics reports the CPI on a monthly basis and has calculated it as far back as 1913.

### **The Wholesale Price Index**

The WPI is another popular measure of inflation, which measures and tracks the changes in the price of goods in the stages before the retail level. While WPI items vary from one country to another, they mostly include items at the producer or wholesale level. For example, it includes cotton prices for raw cotton, cotton yarn, cotton gray goods, and cotton clothing. Although many countries and organizations use WPI, many other countries, including the U.S., use a similar variant called the producer price index (PPI).

### **The Producer Price Index**

The producer price index is a family of indexes that measures the average change in selling prices received by domestic producers of goods and services over time. The PPI measures price changes from the perspective of the seller and differs from the CPI which measures price changes from the perspective of the buyer.

In all such variants, it is possible that the rise in the price of one component (say oil) cancels out the price decline in another (say wheat) to a certain extent.