DEMAND ANALYSIS

MEANING OF DEMAND:

Demand for a commodity refers to the quantity of the commodity which an individual consumer or a household is willing to purchase per unit of time at a particular price.

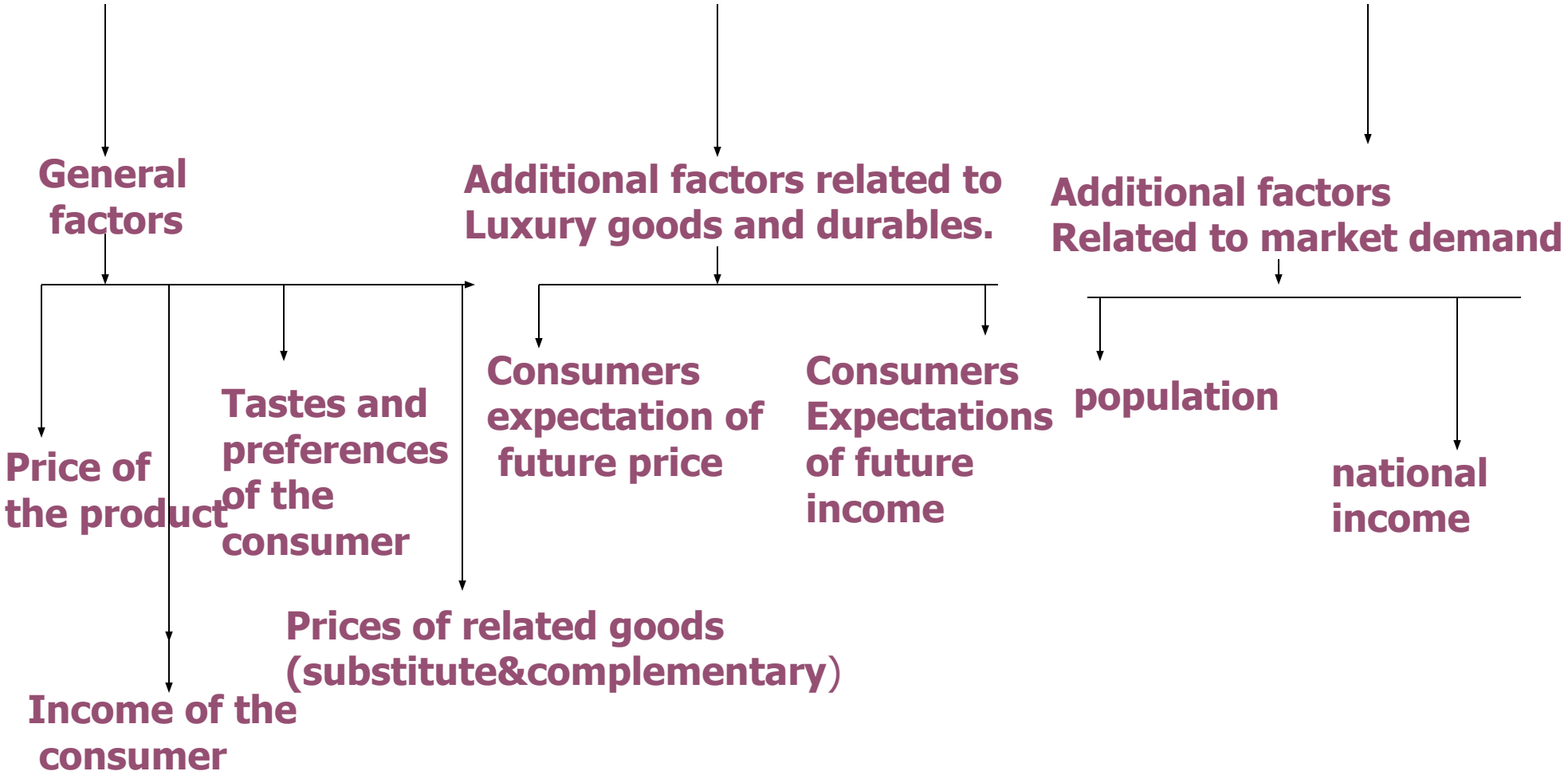
Demand for a commodity implies –

- Desire of the consumer to buy the product.
- His willingness to buy the product.
- Sufficient purchasing power in his possession to buy the product.

Example:

If a man wants to buy a car but he doesn't have sufficient money to pay for it, his want is not his demand for the car and if a rich miserly person wants to buy a car but isn't willing to pay for the car, his desire too isn't his demand for a car. but if a man has sufficient money and is willing to pay the price of the car, his desire to buy a car is an effective demand

DETERMINANTS OF DEMAND:

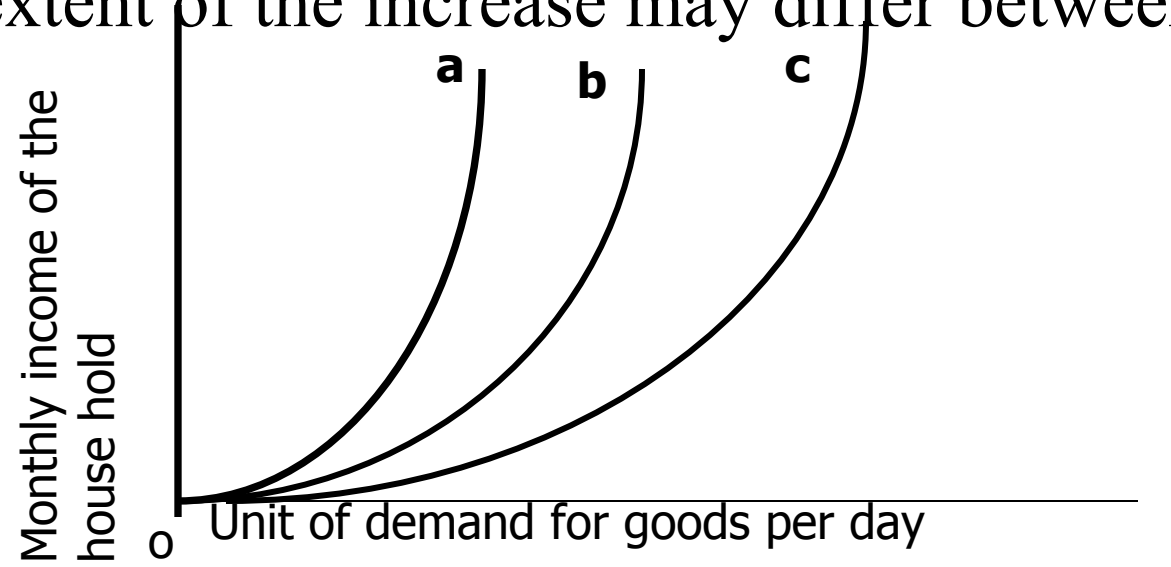


Price of the commodity:

A consumer buys more of a commodity when its price declines and vice versa. but it is different for substitute goods and complementary goods

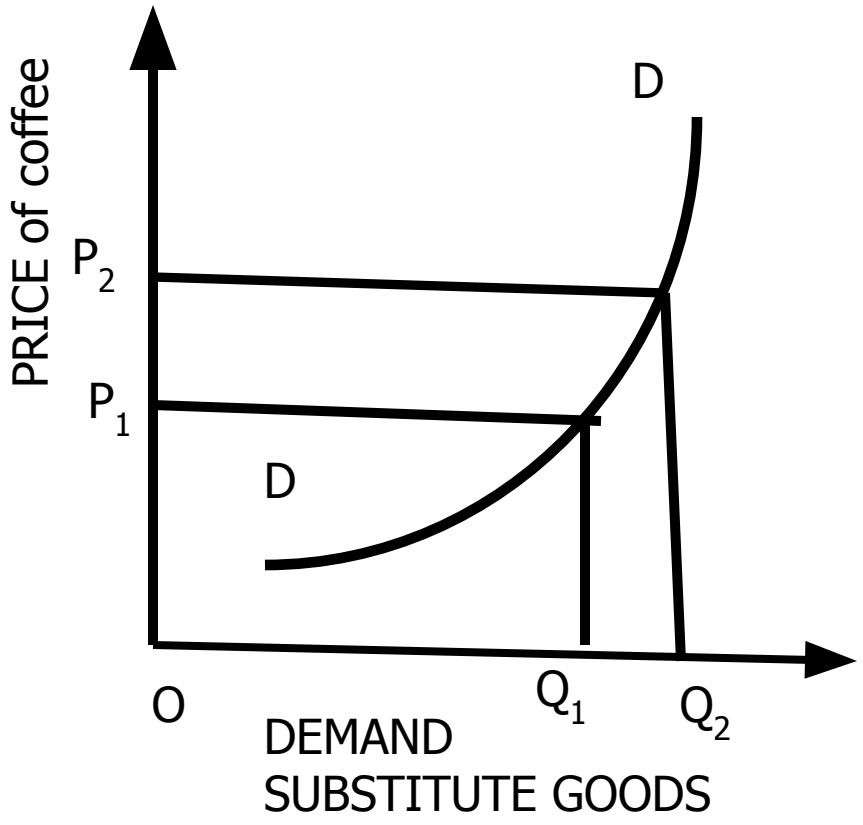
INCOME OF THE CONSUMER:

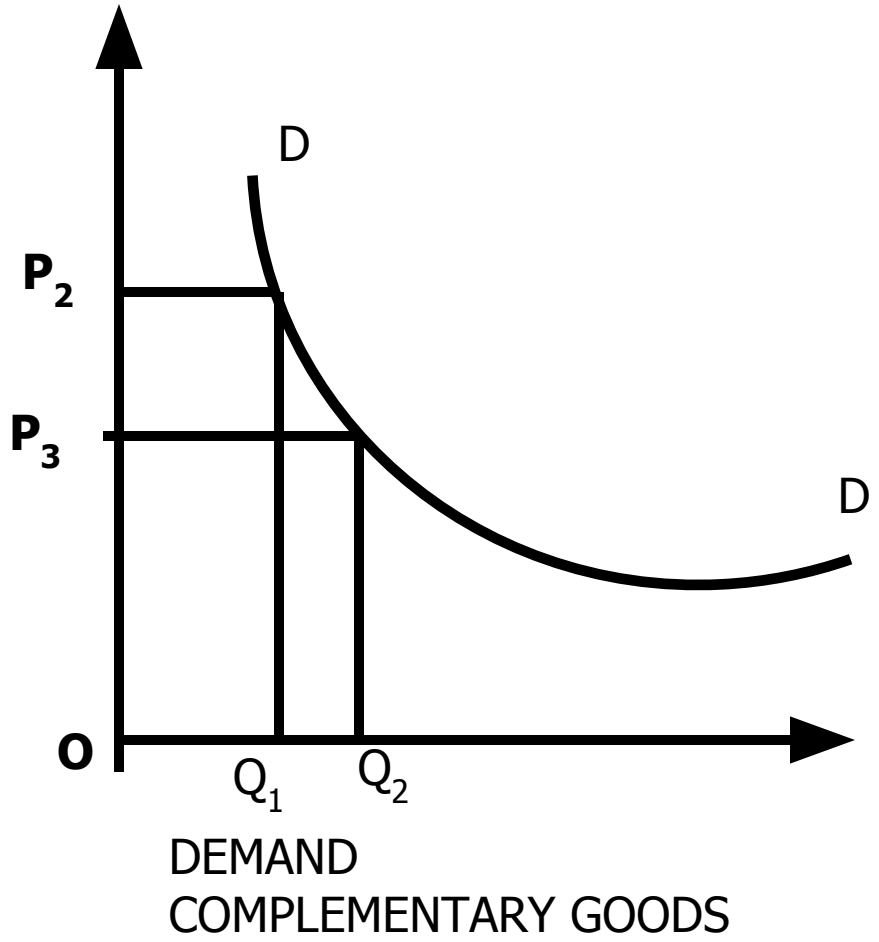
With an increase in income, a household buys increased amount of most of the commodities in his consumption bundle though the extent of the increase may differ between commodities.



Prices of related goods:

when a change in the price of one commodity influence the demand of the other commodity, we say that the two commodities are selected. the related commodities are of two types: substitutes,and complements





TASTE AND PREFERENCE OF THE OF A CONSUMER

The change in taste and preferences of a consumer in favor of a commodity results in greater demand for the commodity, while if this change is against the commodity it results in smaller demand for the commodity.

CONSUMER'S EXPECTATIONS OF FUTURE PRICE

If the consumer expects future prices of the goods to increase , he would rather like to buy the commodity now than latter, this will increase the demand for the commodity.

CONSUMER EXPECTATIONS OF FUTURE INCOME

in case the consumer expects a higher income in future,he spends more at present, and there by the demand for the good increases. opposite will be the case ,if he expects lower income in future,

ADVERTISEMENT OF THE PRODUCT:

Advertisement helps in increasing demand for the product at least four ways

- by informing the potential consumers about the availability of the product
- by showing its superiority over the rival product
- by influencing consumers choice against the rival products
- by setting new fashions changing tastes.

POPULATION OF THE COUNTRY:

Total domestic demand of a product depends also on the size of the population .the larger the population the larger the demand for the product.

NATIONAL INCOME:

The higher the national income, the higher the demand for all normal goods and services.

DEMAND FUNCTION:

- A mathematical expression of of the relationship between
- quantity demanded of the commodity and its
- determinants is known as the demand function. when this relationship relates to the demand by an individual consumer it is known as individual’s demand function

- **INDIVIDUAL DEMAND FUNCTION:**
- Q_{DX}=f(PX,Y,P1……..,PN-1,T,A,EY,EP,u)
- Where:
- Q_{dx}: quantity demanded of a product X,
- P_x :price of the product
- Y: level of household income
- P_1,……,P_{n-1}:price of all the other related products in economy (related products include substitutes and complements)
- T: tastes of the consumer
- A: advertising
- E_Y: consumers expected future income
- E_p :consumers expectations about future prices
- u: determinants which are not covered in the list of determinants given above.

Market demand function:

$$Q_{dx}=f(Px,Y,P_1,\ldots P_{n-1},..T,A,Ey, Ep, P, D, u$$

Where:Qdx,Px,Y,P_1….Pn-1,T,A,Ey,Ep and u are the same as in the individual demand function.
While
p: population
D: distribution of consumers in various categories depending on income ,age, sex etc.

Suppose the market demand function is specified as:
$Q_t=a_1P_t+a_2Y_t+a_3Pop_t+a_4A_t$

Here Qt is quantity demand of refrigerators during a given year

P_t is price of refrigerators
Y_t is average per capita disposable income
Pop_t is population
A_t is advertising expenditure

The term a1,a2,a3,and a4 are called parametres of demand function.the value of these four is given.

a1=-200,a2=100,a3=0.001,a4=0.05

By putting the value of a1,a2,a3,a4 we get qt=-200pt+100yt+.001popt+.05at

We find from the above equation that refrigerators demand falls by 200 units for each one rupee increase in its price., it increases by 100 units for each one rupee increase in per capita income, it increases by.001 units for each additional unit in population, and it increases by .05 units for every additional rupee spent on advertisement.

We assume that pt=4000,yt=1000,popt=700,000,000,and at=100,000,000 then by substituting these values in above equation we get

Qt=-200*4000+100*1000+0.001*700,000,000+0.05*100,000,000=5,000,000 units

Meaning of the Quantity Demand

- **quantity demanded** The amount (number of units) of a product that a household would buy in a given period if it could buy all it wanted at the current market price.
- It is important to focus on the price change alone with the *ceteris paribus*, or "all else equal," assumption.

Changes in Quantity Demanded versus Changes in Demand

- Changes in the price of a product affect the *quantity demanded* per period.
- Changes in any other factor, such as income or preferences, affect *demand*.
- Thus, we say that an increase in the price of Coca-Cola is likely to cause a decrease in the *quantity of Coca-Cola demanded*. However, we say that an increase in income is likely to cause an increase in the *demand* for most goods.

Price and Quantity Demanded: The Law of Demand

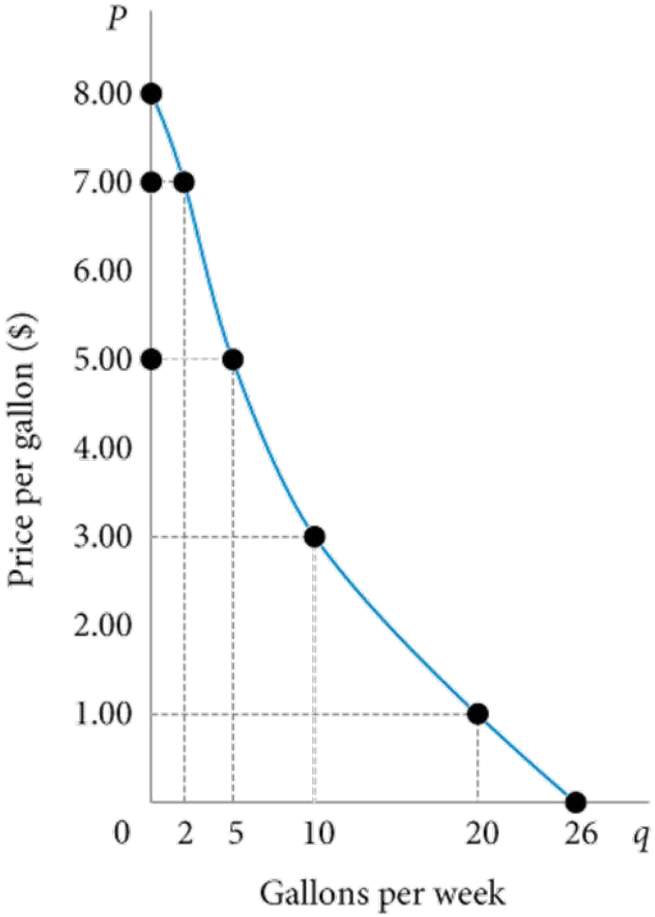
- **demand schedule** Shows how much of a given product a household would be willing to buy at different prices for a given time period.
- **demand curve** A graph illustrating how much of a given product a household would be willing to buy at different prices.

TABLE 3.1 Alex's Demand Schedule for Gasoline

Price (per gallon)	Quantity Demanded (gallons per week)
$8.00	0
7.00	2
6.00	3
5.00	5
4.00	7
3.00	10
2.00	14
1.00	20
0.00	26

The relationship between price (P) and quantity demanded (q) presented graphically is called a demand curve.
Demand curves have a negative slope, indicating that lower prices cause quantity demanded to increase.
Note that Alex's demand curve is blue; demand in product markets is determined by household choice.

FIGURE 3.2 Alex's Demand Curve



Shifts of Demand versus Movement along a Demand Curve

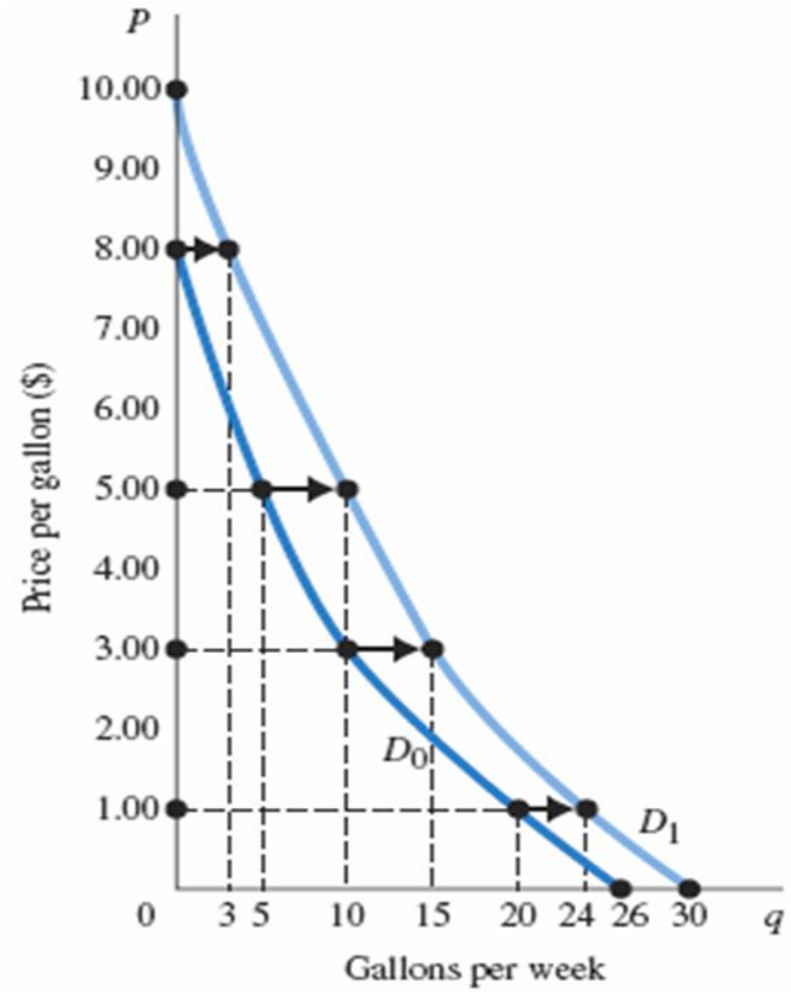
- **shift of a demand curve** The change that takes place in a demand curve corresponding to a new relationship between quantity demanded of a good and price of that good. The shift is brought about by a change in the original conditions.
- **movement along a demand curve** The change in quantity demanded brought about by a change in price.

Shift of a Demand Curve Following a Rise in Income

When the price of a good changes, we move *along* the demand curve for that good.

When any other factor that influences demand changes (income, tastes, and so on), the demand curve shifts, in this case from D_0 to D_1.

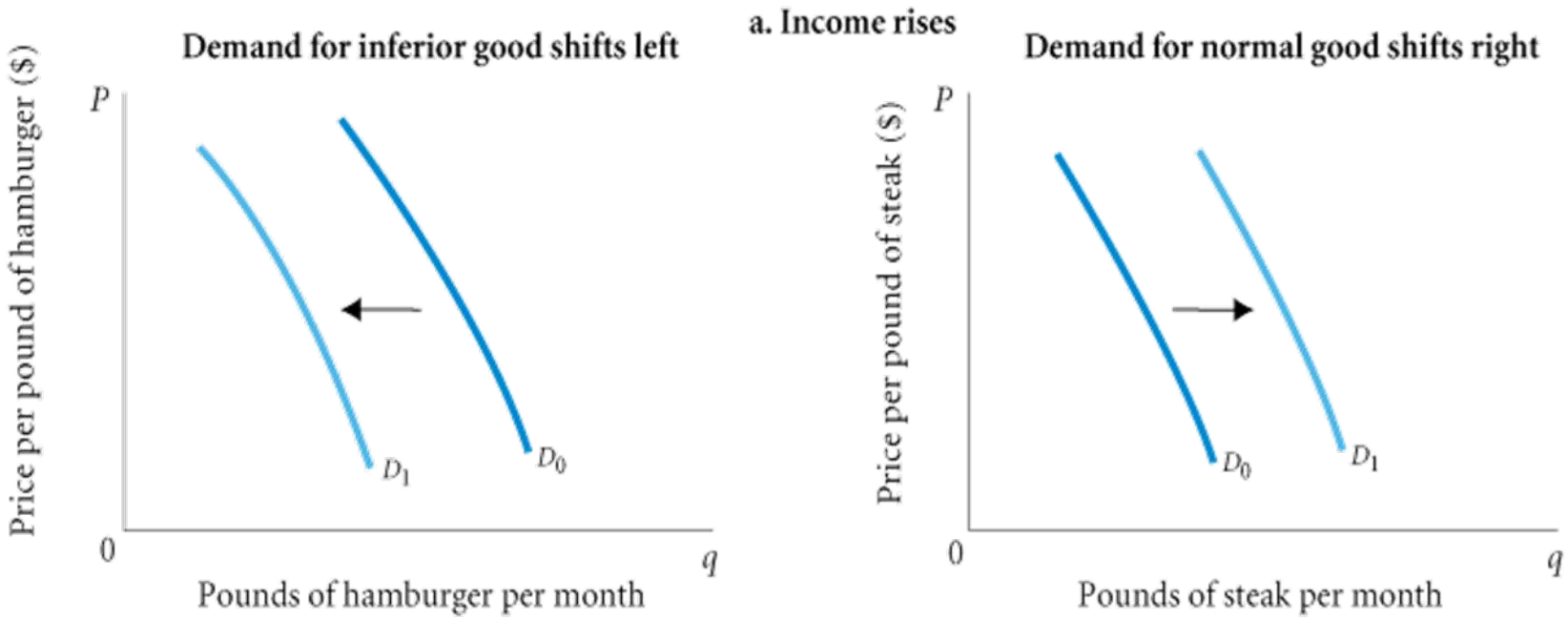
Gasoline is a normal good, so an income increase shifts the curve to the right.



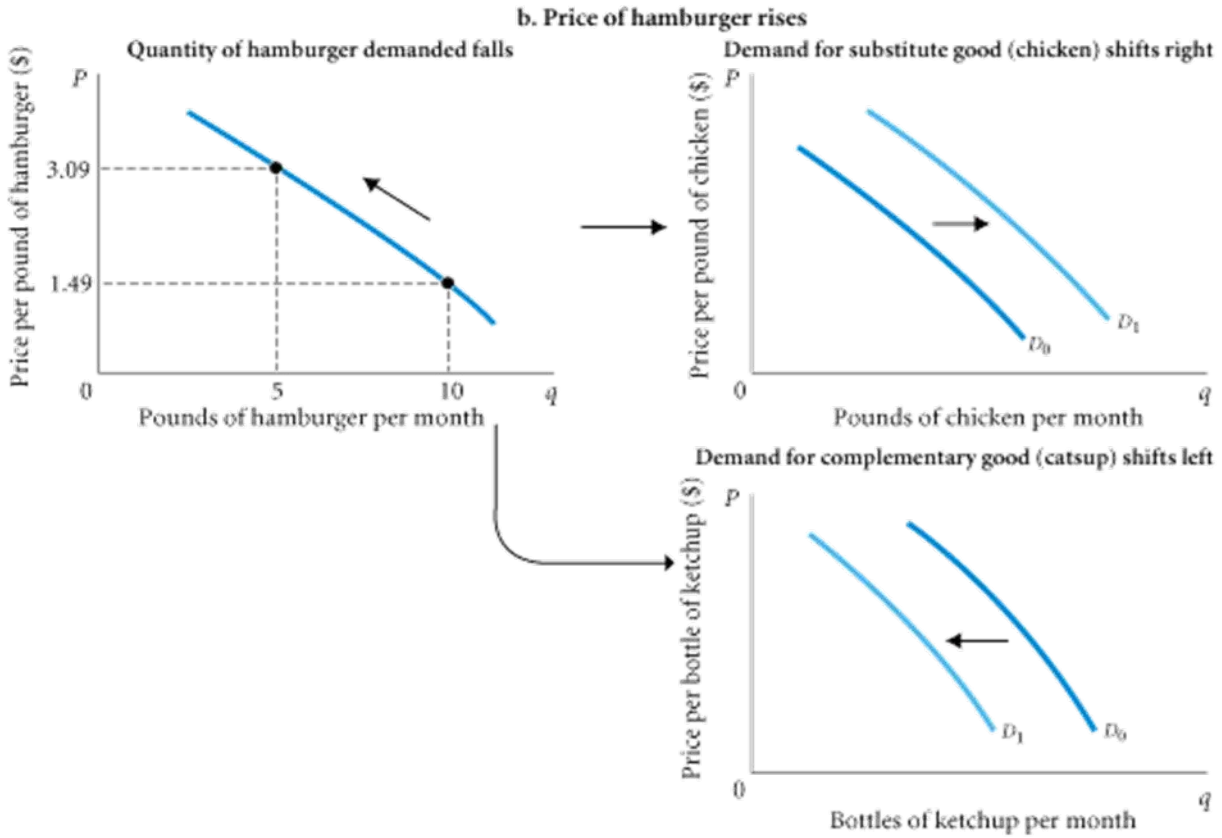
Shifts of Demand versus Movement along a Demand Curve

- Change in price of a good or service leads to
  change in *quantity demanded* (**movement along a demand curve**).
- Change in income, preferences, or prices of other goods or services leads to
  change in *demand* (**shift of a demand curve**).

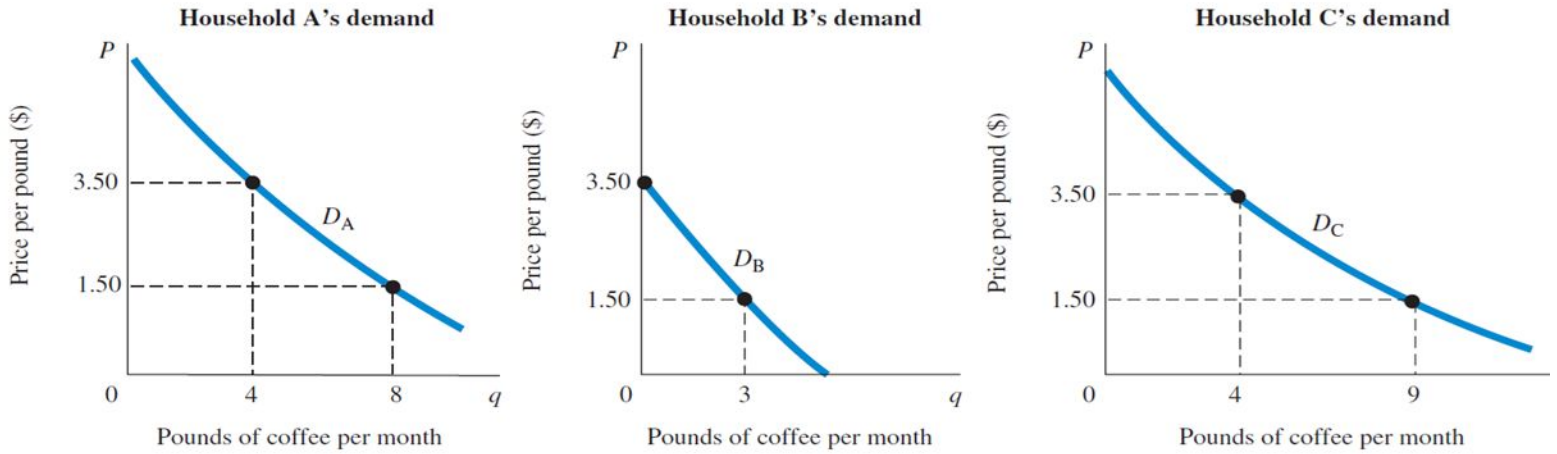
Shifts versus Movement along a Demand Curve

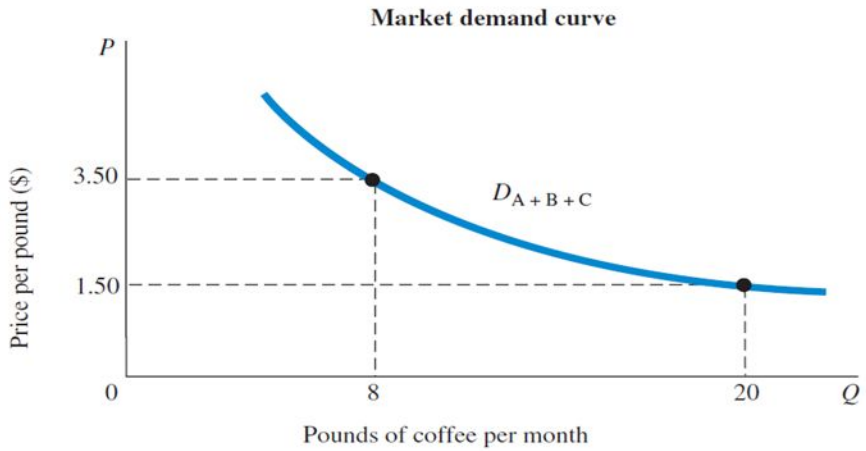


Shifts versus Movement along a Demand Curve



Deriving Market Demand from Individual Demand Curves





Price	Quantity (q) Demanded by A		B		C	Total Quantity Demanded in the Market (Q)
$3.50	4	+	0	+	4	= 8
1.50	8	+	3	+	9	= 20