MICROECONOMICS

(BCS 2002 & BSE 2002)/BA]

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(C) DEMAND AND SUPPLY

MARKET EQUILIBRIUM
LECTURE-9

1.MARKET EQUILIBRIUM PRICE &QUANTITY

DEFINITION:

Equilibrium price and quantity are when there is no shortage or surplus of a product in the market at a price . Supply and demand intersect, meaning the amount of an item that consumers want to buy is equal to the amount being supplied by its producers at the market price. In other words, the market has reached a perfect state of balance as prices stabilize to suit both the buers and sellers .

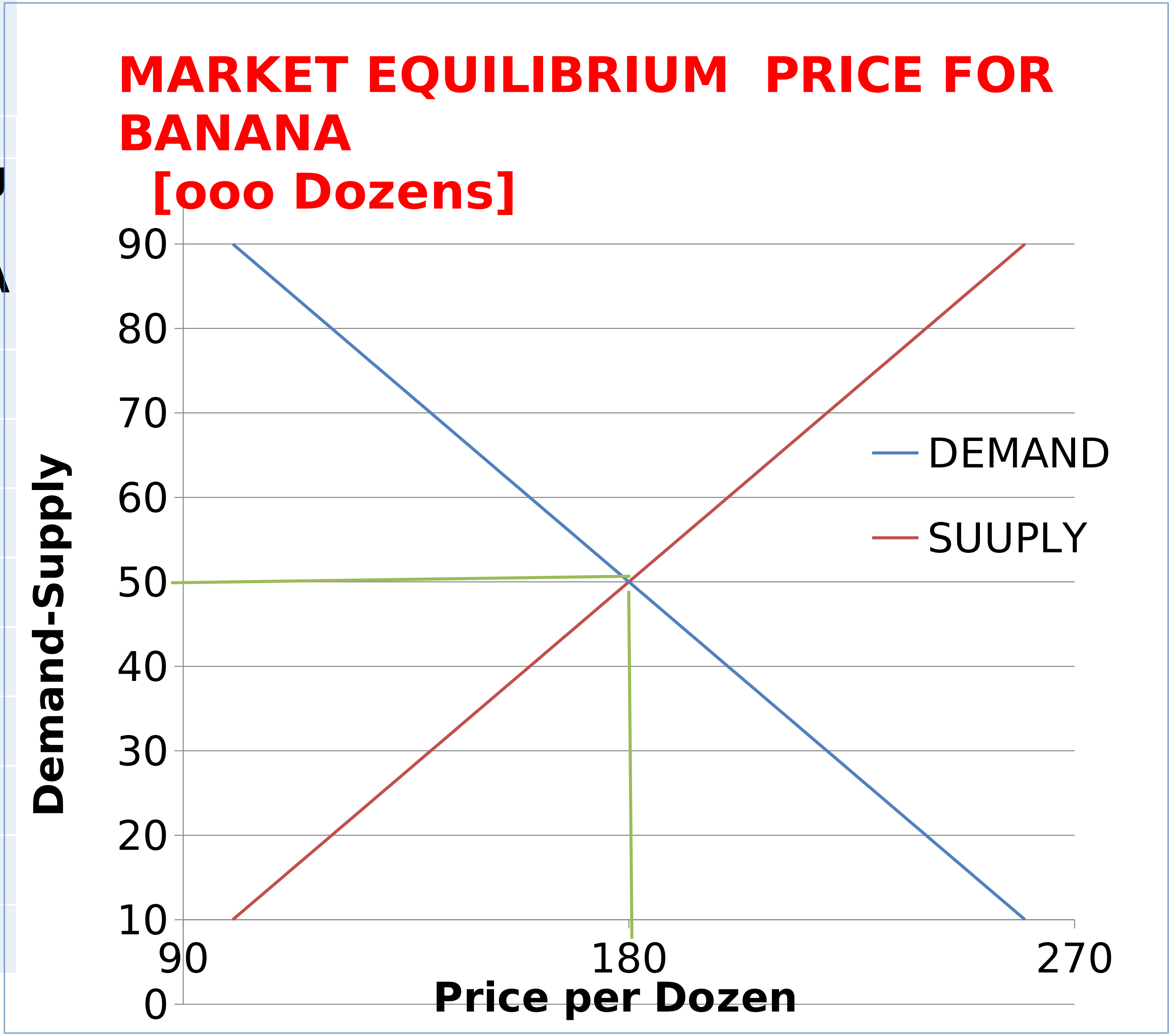
2.MARKET EQUILIBRIUM PRICE &QUANTITY

1. **Equilibrium quantity is when supply equals demand for a product.**
2. **The supply and demand curves have opposite trajectories and eventually intersect, creating price equilibrium and equilibrium quantity.**
3. **Hypothetically, this is the most efficient state the market can reach and the state to which both quantity and price naturally gravitate.**

3. DEMAND & SUPPLY OF BANANAS [000 DOZENS			
PRICE PER DOZEN	DEMAND	SUUPLY	SURPUS SHORTA GE
30	90	10	-80
35	80	20	-60
40	70	30	-40
45	60	40	-20
50	50	50	0
55	40	60	20

DEMAND & SUPPLY OF BANANAS [000 DOZENS

PRICE PER DOZEN	DEMAND	SUUPLY	SURPLUS/ SHORTAGE
100	**90**	**10**	**-80**
120	**80**	**20**	**-60**
140	**70**	**30**	**-40**
160	**60**	**40**	**-20**
180	**50**	**50**	**0**
200	**40**	**60**	20
220	**30**	**70**	40
240	**20**	**80**	60
260	10	90	80



4. MARKET EQUILIBRIUM

Market Equilibrium:

$$Q_S = Q_D$$

-Qs =Quantity Supplied

-Qd = Quantity Demanded

1. Demand Equation: [D= a- bP] D= 40-2P

2. Supply Equation: [S= a +bP] S= 22 + 4P

3. Equilibrium Price-Price Per Unit:

D = S

40-2P = 22+ 4P

40 -22 = 4P+2P

6P = 18

P =18/8

P = 3

The equilibrium price =Rs. 3 Per Unit

…4.CLASS EXERCISE:

D= 40-2P S= 22 + 4P

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(i) **Find the Surplus at price 4 Per Unit[-Price above the Equilibrium price]**

(ii) Find the Shortage at Price 2 Per Unit [-Price below the equilibrium price]

...4 CLASS EXCERCISE.SOLUTION =:

D= 40-2P S= 22 + 4P _

(i) Rs. 4 Per Unit:

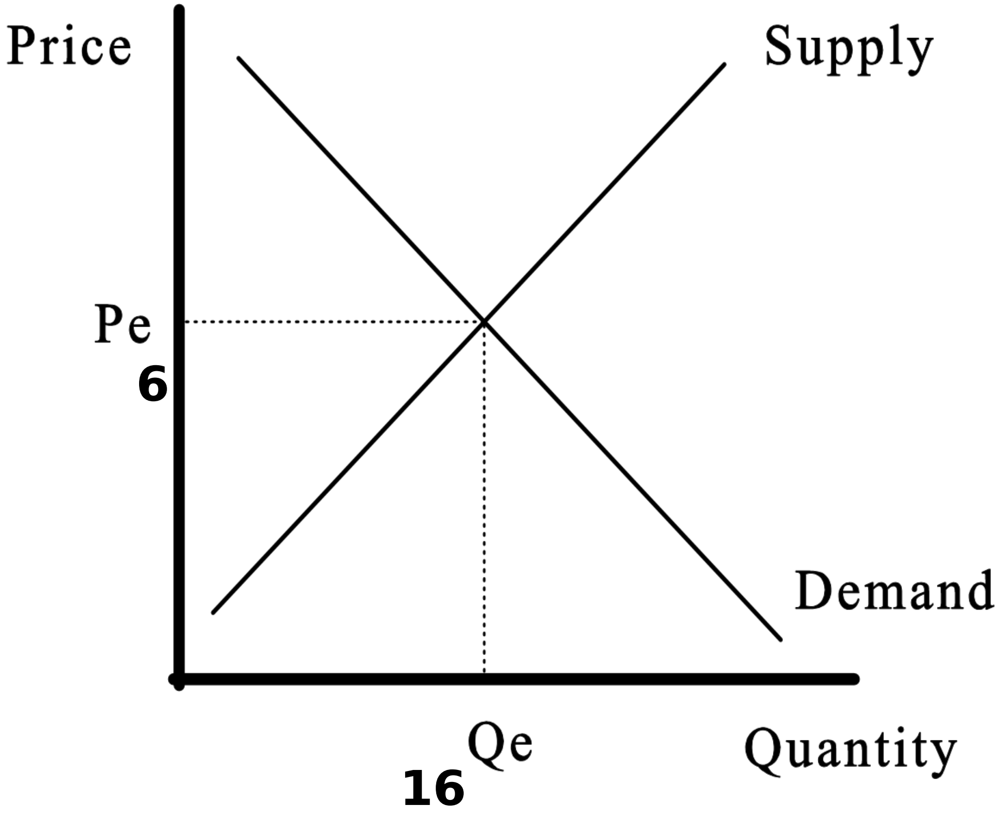
Demand =32 Supply = 38 Surplus =6

(ii) Rs. 2 Per Unit:

Demand =36 Supply = 30 Shortage = 6

5.SHIFT IN MARKET EQUILIBRIUM PRICE

The market price of a product converges back to equilibrium price if there is any temporary shift in price above or below the equilibrium price. THEN WHY PRICES OF GOODS PERMANENTLY CHANGES IN BOTH DIRECTIONS. CHANGES, (OTHER THAN PRICE) IN THE DETERMINANTS OF SUPPLY AND/OR DEMAND RESULT IN A NEW EQUILIBRIUM PRICE AND QUANTITY. WHEN THERE IS A CHANGE IN SUPPLY OR DEMAND, THE OLD PRICE WILL NO LONGER BE AN EQUILIBRIUM. INSTEAD, THERE WILL BE A



Demand Curve is $Q_d = 22 - P$

Supply Curve is $Q_s = 10 + P$

EQ: Price $= 22 - P = 10 + P$

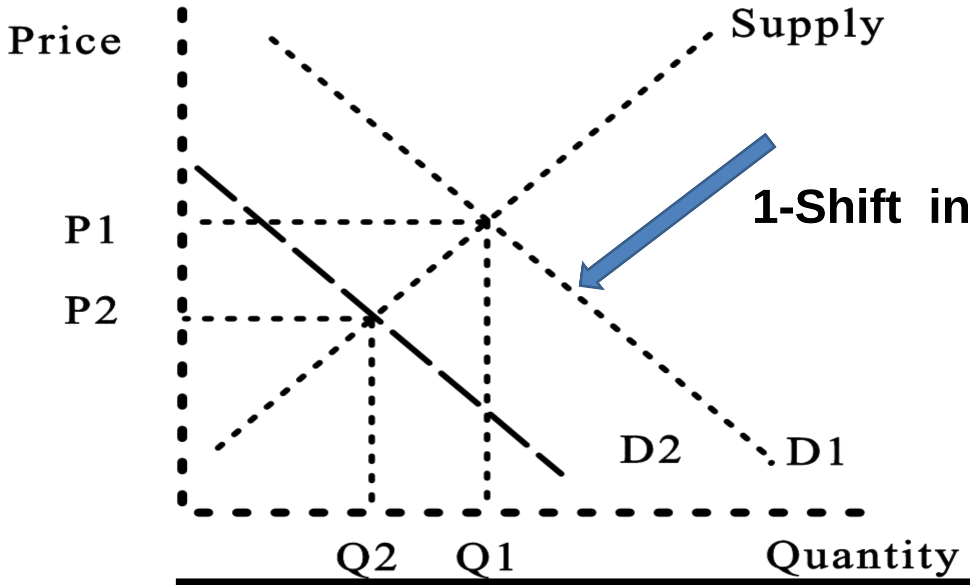
$12 = 2P$ **and**

$P_e = 6$

WITH PRICE $Q_e = 16$

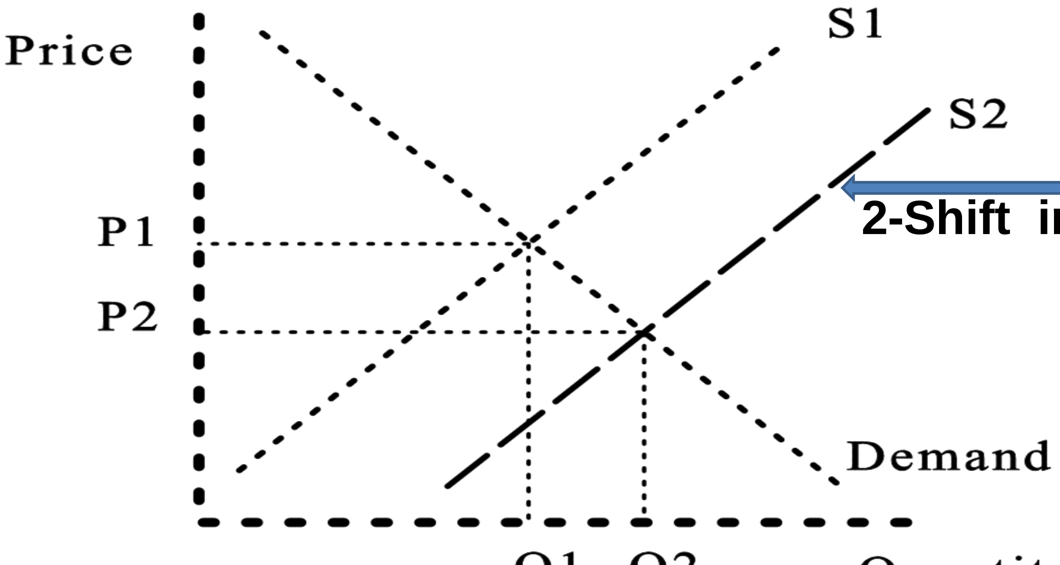
Shifts in Supply and Demand in the market result in new equilibria. (Next Slides):

Shift in Demand



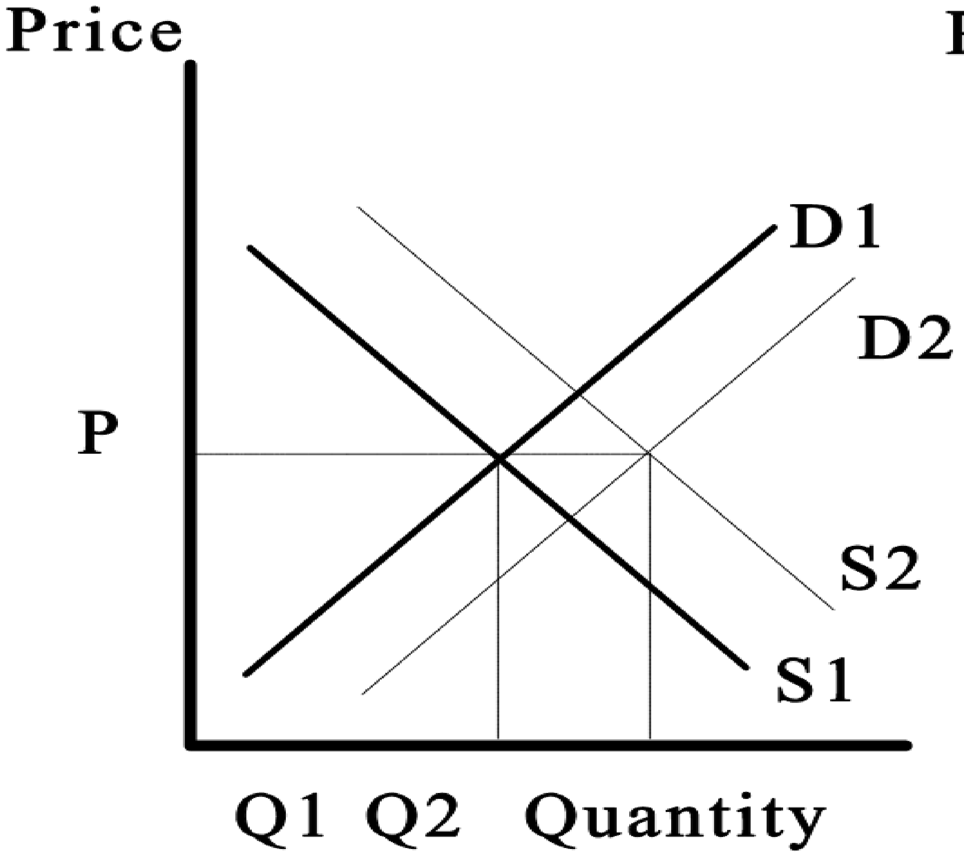
1-Shift in Demand D2 to D1

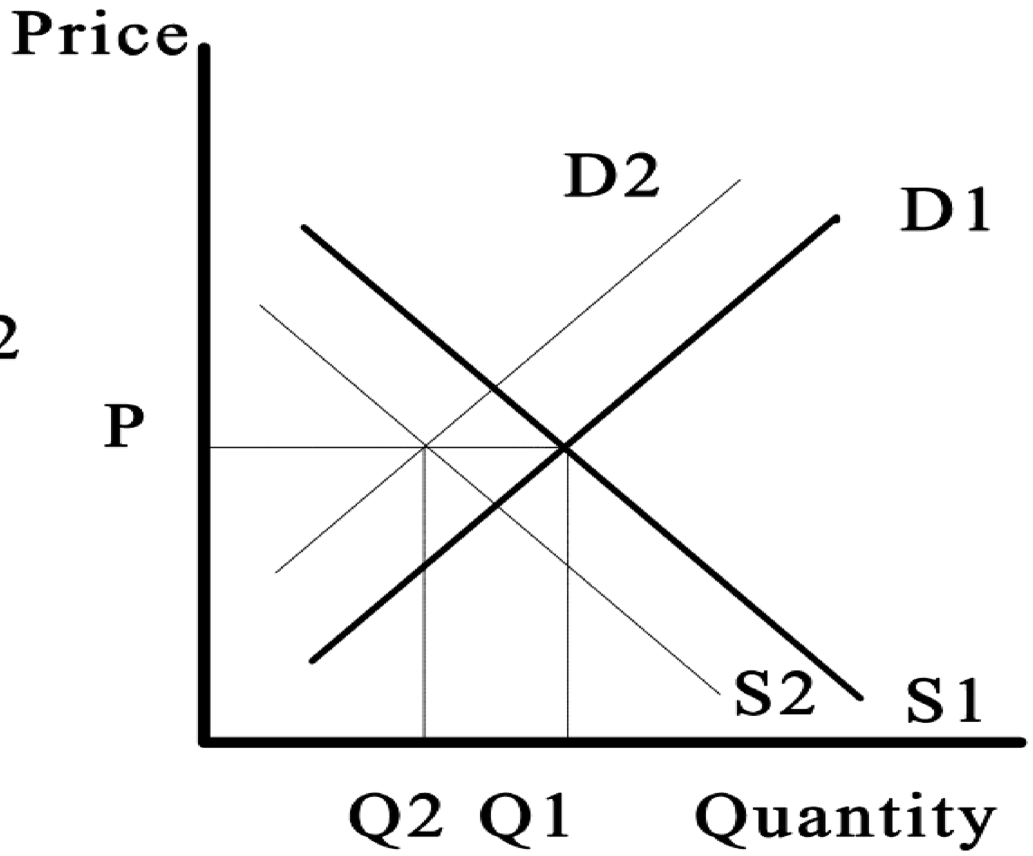
Shift in Supply



2-Shift in Supply S1 to S2

3-Upward Shift in Demand & Supply **4 -Downward Shift in Demand & Supply**





6.FIXATION OF PRICES BY THE GOVERMNET

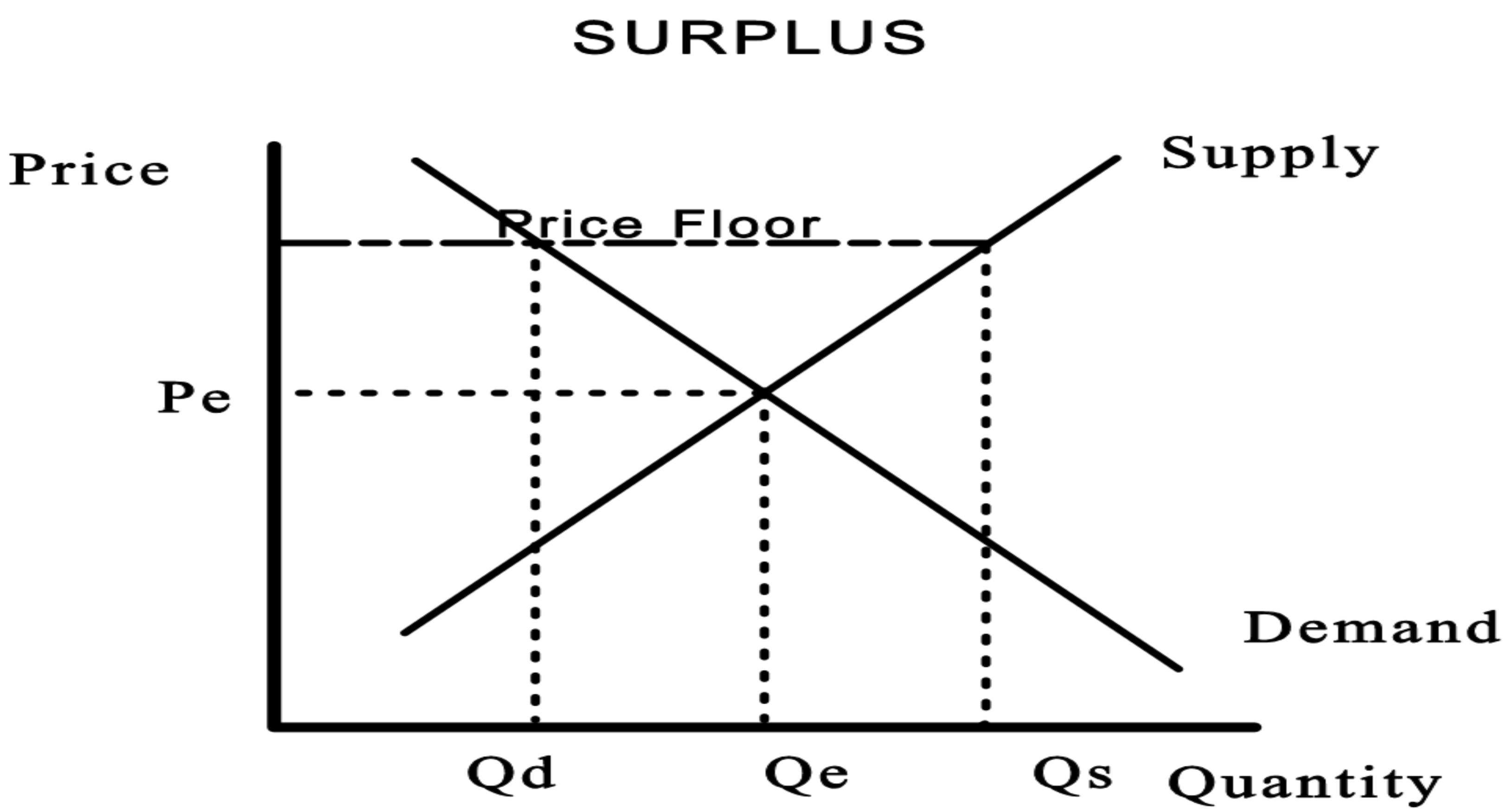
We economists may not know much, but we know one thing very well, and that's how to create shortages and surpluses. Just tell us which you want!

If you want a shortage, all we have to do is to set a price that's below the market price and I'll guarantee you a shortage. If you want a surplus, set a price too high and you'll have your surplus.

Milton Friedman:

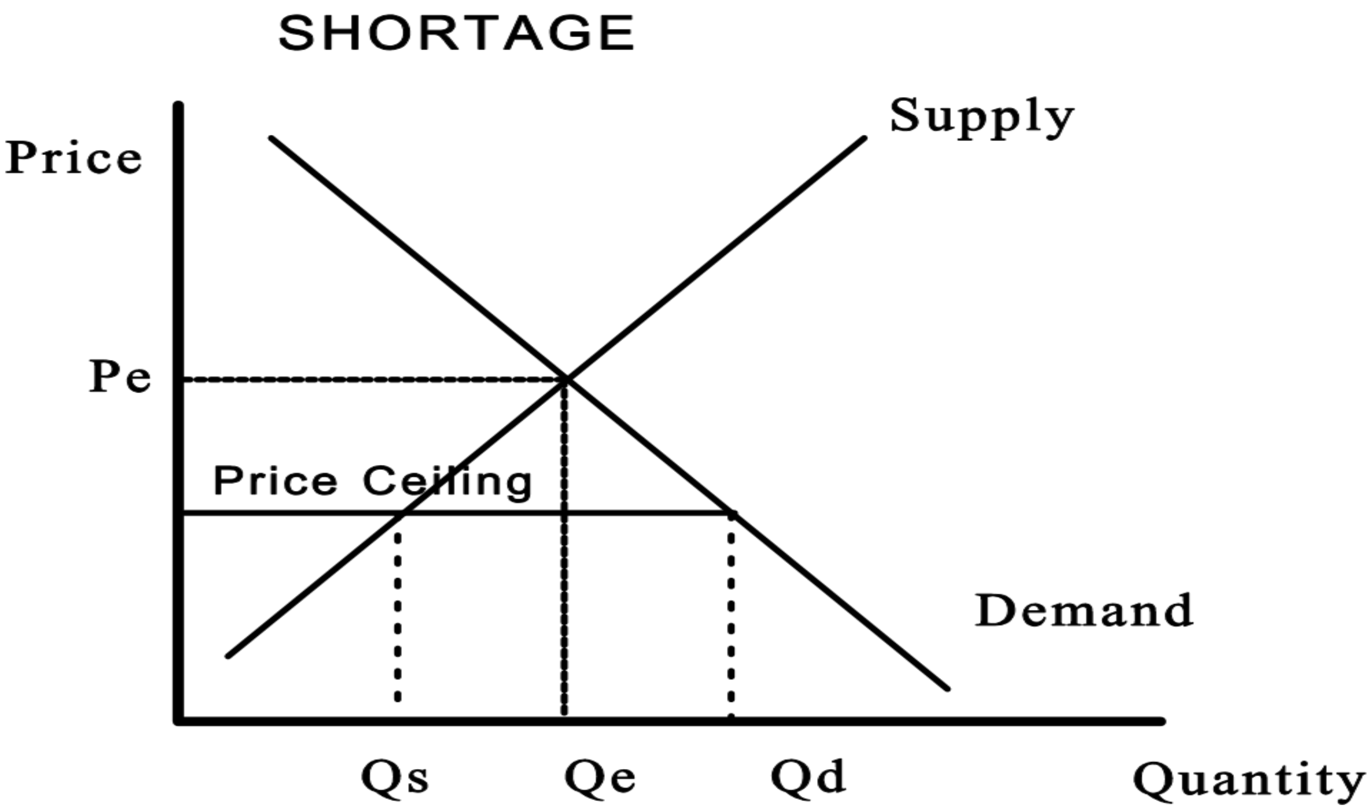
..6. FIXATION OF PRICES BY THE GOVERMNET

(a) Surplus is caused by an effective price floor (i.e., the minimum guaranteed price)



…6. FIXATION OF PRICES BY THE GOVERMNET

(b) Shortage is caused by an effective price ceiling (the maximum price that can be charged for the product).



7. Consumer & Producer Surplus:

(i) Consumer Surplus [Already discussed)

(ii) Producer Surplus: There are always some producers who may get a higher market price for their products though they are ready o sell at lower price. (All the supply curve points below the equilibrium price) and they enjoy Surplus due favorable market conditions. In other words The producer surplus is the difference between the market price and the lowest price a producer is willing to accept to produce a good.

Graphically (figure on next Slide) producer surplus is the inner triangular area between the equilibrium price and the supply curve. (And Consumer surplus is the inner triangular area between the equilibrium price and the demand curve).

…7. Consumer & Producer Surplus: