

HW#4 From Problem and Applications of Mankiw book, Chapter 4 The Market Forces of Supply and Demand

#1 Answer only part (b) and (e). Follow the instruction of the question and, in addition, describe the market mechanism that causes the change in the market equilibrium.

3. Consider the market for minivans. For each of the events listed here, identify which of the determinants of demand or supply are affected. Also indicate whether demand or supply increases or decreases. Then draw a diagram to show the effect on the price and quantity of minivans.

~~a. People decide to have more children.~~

b. A strike by steelworkers raises steel prices.

~~c. Engineers develop new automated machinery for the production of minivans.~~

~~d. The price of sports utility vehicles rises~~

e. A stock market crash lowers people's wealth.

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11. Suppose that the price of basketball tickets at your college is determined by market forces. Currently, the demand and supply schedules are as follows:

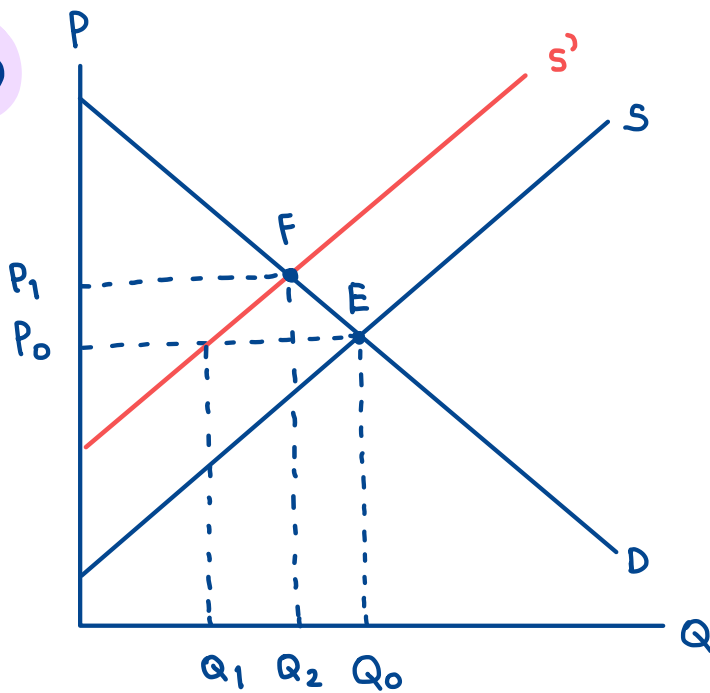
Price	Quantity Demanded	Quantity Supplied
\$4	10,000 tickets	8,000 tickets
8	8,000	8,000
12	6,000	8,000
16	4,000	8,000
20	2,000	8,000

a. Draw the demand and supply curves. What is unusual about this supply curve? Why might this be true?

b. What are the equilibrium price and quantity of tickets?

c. Your college plans to increase total enrollment next year by 5,000 students. The additional students will have the following demand schedule:

b)



At first point E is the Equilibrium

$$Q_s = Q_D \quad P = P_0, \quad Q = Q_0$$

When the strike by steelworker causes the price of the steel to increase so when

$P \uparrow \rightarrow S \downarrow$ then s move to s'

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Then at P_0 the quantity supply move to Q_1

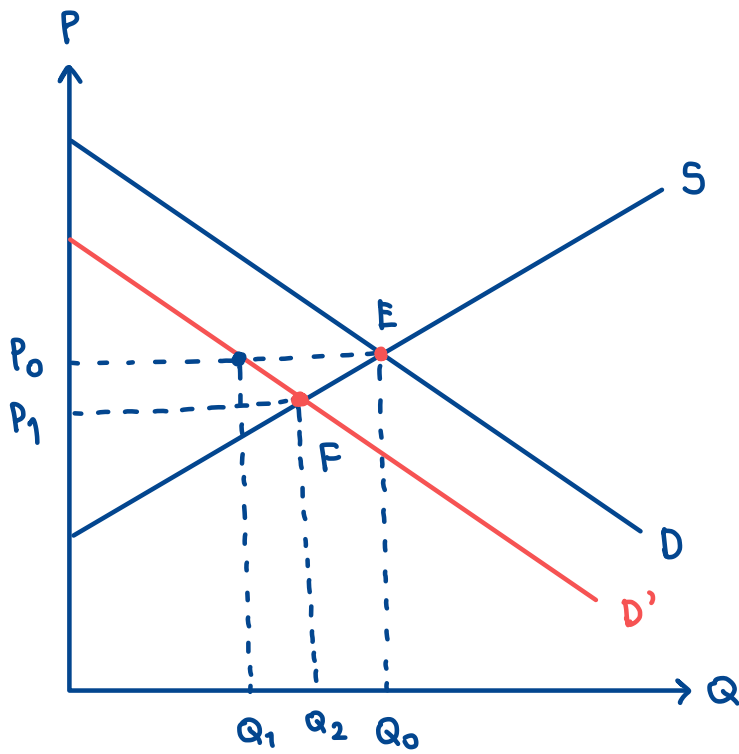
which is less than Q_0 so $Q_0 > Q_1$, Quantity demand > Quantity supply
= Excess demand.

Then the price will increase to P_1 to the new equilibrium at point F

$P \uparrow$ to P_1 and the Quantity supplied change move to Q_2 .

∴ So the price increase from P_0 to P_1 and quantity decrease from Q_0 to Q_2 .

e)



At first point E is the Equilibrium

$$Q_s = Q_D \quad P = P_0, \quad Q = Q_0$$

So when the stock market crash lower people wealth then it's cause the demand to decrease from D to D' income is lower.

Then at P_0 , Quantity demand change from Q_0 to Q_1

make the Quantity supply to be greater at P_0 $Q_0 > Q_1$ Excess supply.

So the Price then decrease to P_1 , New equilibrium

and Quantity demand move to Q_2 $Q_s = Q_D$

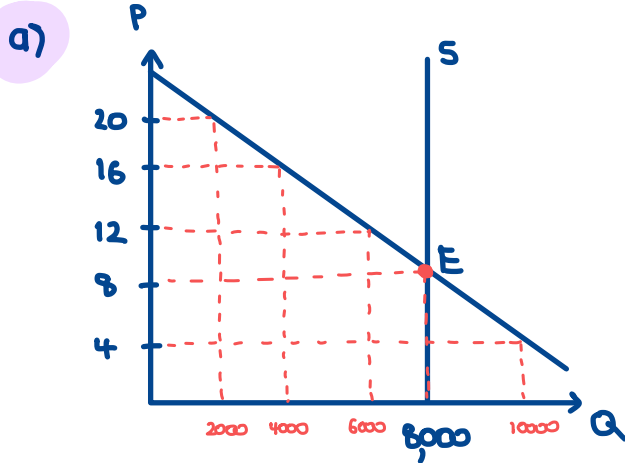
∴ The price decrease from P_0 to P_1 and the quantity also decrease Q_0 to Q_2

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- Draw the demand and supply curves. What is unusual about this supply curve? Why might this be true?
- What are the equilibrium price and quantity of tickets?
- Your college plans to increase total enrollment next year by 5,000 students. The additional students will have the following demand schedule:



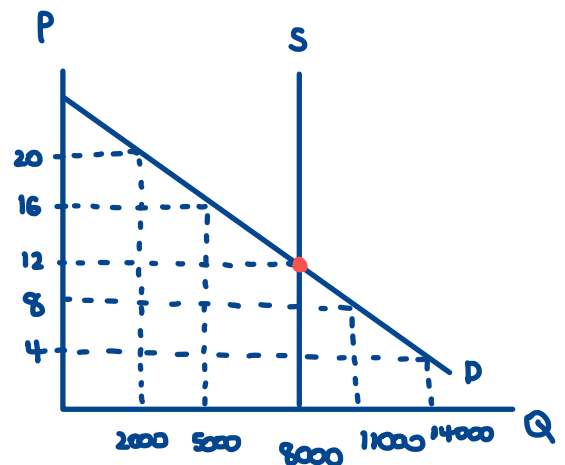
The unusual about supply curve is that at every level of price it can be sold at 8,000 at max.

b) The equilibrium is at point E which is quantity ticket = 8000
Price = 8

c)

Price	Quantity Demanded	
\$4	4,000 tickets	+ 10,000 = 14,000
8	3,000	+ 8,000 = 11,000
12	2,000	+ 6,000 = 8,000
16	1,000	+ 4,000 = 5,000
20	0	+ 2,000 = 2,000

Now add the old demand schedule and the demand schedule for the new students to calculate the new demand schedule for the entire college. What will be the new equilibrium price and quantity?



New equilibrium is at (8000, 12)

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Price	Quantity Demanded
\$4	4,000 tickets
8	3,000
12	2,000
16	1,000
20	0

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