

HW#8 Due March 1, 2022

9. At Fenway Park, home of the Boston Red Sox, seating is limited to about 38,000. Hence, the number of tickets issued is fixed at that figure. Seeing a golden opportunity to raise revenue, the City of Boston levies a per ticket tax of \$5 to be paid by the ticket buyer. Boston sports fans, a famously civic-minded lot, dutifully send in the \$5 per ticket. Draw a well-labeled graph showing the impact of the tax. On whom does the tax burden fall—the team's owners, the fans, or both? Why?
10. A market is described by the following supply and demand curves:

$$Q^S = 2P$$

$$Q^D = 300 - P$$

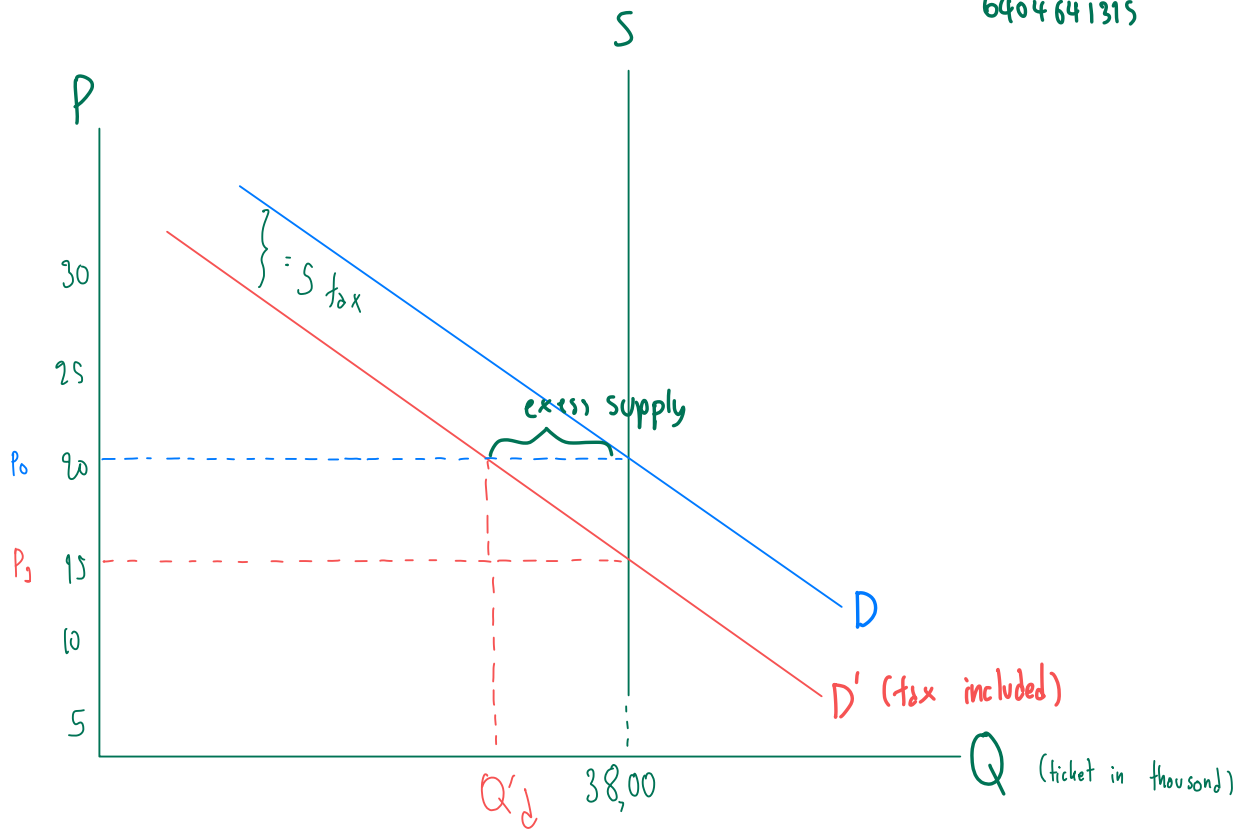
- Solve for the equilibrium price and quantity.
- If the government imposes a price ceiling of \$90, does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?
- If the government imposes a price floor of \$90, does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?
- Instead of a price control, the government levies a tax on producers of \$30. As a result, the new supply curve is:

$$Q^S = 2(P - 30).$$

Does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?

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From the graph there are excess supply equal to $38,000 - Q'_d > 0$

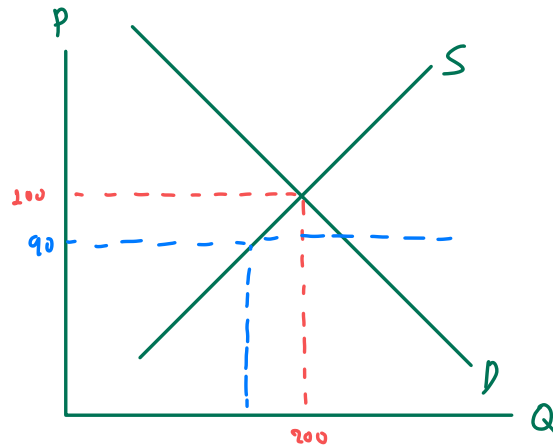
it will make the price fall to the new equilibrium at P₁. However, the quantity equilibrium is still the same at 38,000 tickets.

According to the supply is vertical or perfectly inelastic

the $\eta_s = 0$

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a.) $2p = 300 - p$
 $p = 100, Q = 200$
 $E_p = 100$
 $E_Q = 200$

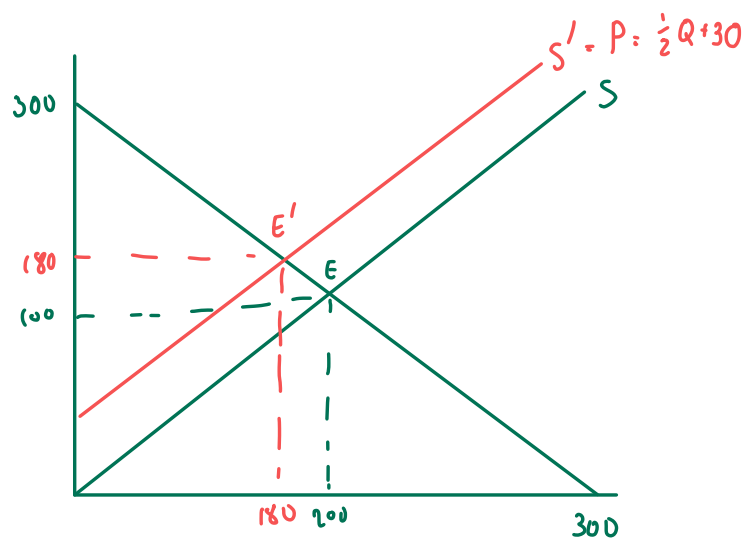


b.) cal Q_s $Q_D = 300 - p$
 $Q_s = 2p$ $= 300 - 90$ $\therefore Q_s < Q_D = \text{shortage}$
 $= 180$ $= 210$

c.) If the government set the floor price at 90\$ (less than the E_Q price)
 So, there are no effect because they trade under the E_Q

b.) $Q_s = 2p - 60$

$300 - p = 2p - 60$
 $360 = 3p$
 $120 = p$
 $Q_s = 180$
 $Q_D = 180$



• At E' $(P, Q) = (120, 180)$

• There is excess demand $Q^d - Q^s = 200 - 140 = 60$

means that price will increase until there is no excess demand.