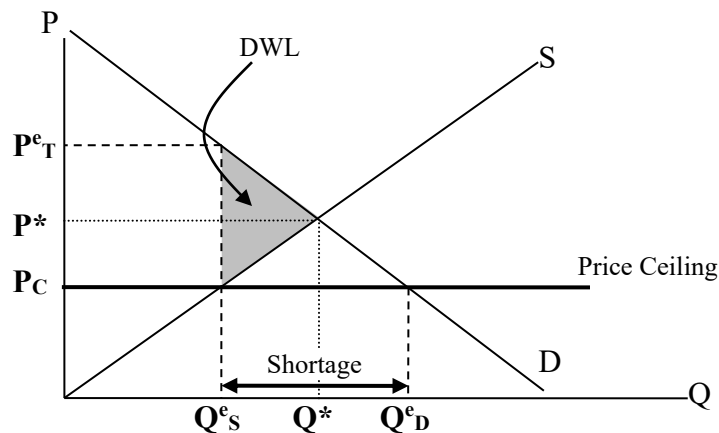


## TOPIC 08: PRICE CONTROLS I

- I. How markets react
  - a. Suppose a water main broke. In the market for bottled water, what effect would we see?
    - i. Under normal circumstances, demand would shift and the price would rise.
    - ii. Recall the reason that the price rises is because the shift in demand creates a shortage, one solved by rising prices. But what if the price can't rise?
- II. Price controls
  - a. Governments often try to control the market and one way is through price controls.
    - i. A *price floor* is when a price is not allowed to drop below a certain level (such as the minimum wage).
    - ii. A *price ceiling* is when a price is not allowed to rise above a certain level (such as rent control).
  - b. Price controls distort our typical supply and demand analysis.



- III. Effects of the Price Ceiling.
  - a. The control creates a shortage: the difference of the supplied quantity ( $Q_S$ ) and the demanded quantity ( $Q_D$ ), when  $Q_S < Q_D$  (otherwise it's a surplus). People are not only less willing to build buildings but those with a spare room are less willing to rent it out. With lower prices, more people are also looking for places to live (instead of living in a different borough or staying with a friend). This is one reason why it is so hard to find an apartment in Manhattan.

- i. Note there is difference between a shortage and scarcity. In a shortage, there are people willing to pay for the cost to bring the good or service to market, but for whatever reason (legal being the reason here), aren't allowed to pay it. Scarcity simply means there are more uses than quantity, even if those uses have a value below cost.
  - b. The control also creates a distinction between the true price ( $P_T$ ) and the price ceiling ( $P_C$ ), in other words what people legally pay and what they functionally pay.
    - i. This higher true price can manifest as reductions in quality, lines, and search costs.
    - ii. Price controls also make it easier to reject customers based on their race, gender, religion, etc. because those customers can't outbid other customers. This bigotry is captured in the true price.
  - c. The control creates deadweight loss. There are those who want to buy and sell above the control but are not allowed to. Both people walk away from the market unhappy and society as a whole is less wealthy.
- IV. Finding Deadweight Loss (DWL)
  - a. We know by now that efficiency is maximized when exchange occurs up until  $MC = MB$ . But what about when such action does not happen?
    - i. Suppose people can't consume until  $MC = MB$ .
    - ii. Or they consume even though  $MC > MB$
    - iii. In general, DWL is a gain that goes to no one.
  - b. Deadweight loss can occur in many areas and often through government action (because governments can force people to do things they wouldn't otherwise do).