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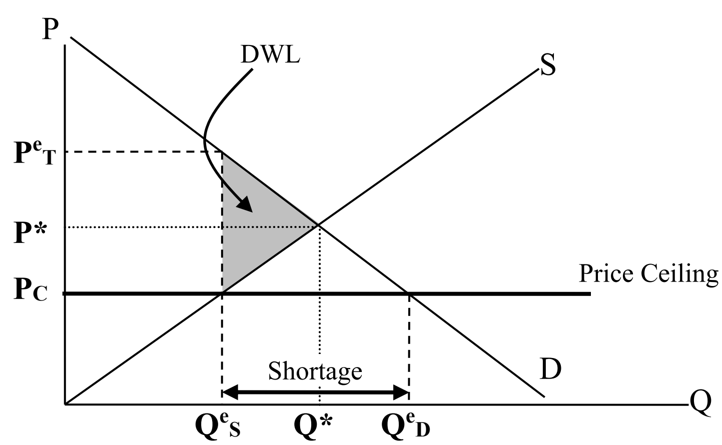
TOPIC 06: PRICE CONTROLS

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).

V. Price Controls and Unintended consequences

a. Generally price ceilings come about because people think a certain good should be cheaper (and thus easier) to buy. But as we see, for many people it actually makes it more difficult to buy because it creates a shortage.

b. It also creates a distinction between the true price (**P_T**) and the price ceiling (**P_C**), where the true price actually exceeds what we would have seen without the control.

c. This difference can manifest in many ways, and not always in a higher monetary price. It takes longer to find an apartment. You might have to pay a bribe to be considered for a place. Or to rent it. You might need to be friends with the right people. Landlords can more easily discriminate based on race, religion, gender, or age.

i. These artificial costs are particularly hard to overcome, especially for the working poor and the elderly. Hence the perverse consequence of rent control: those that are supposed to be helped are those that are most harmed.

VI. The Market for Human Organs

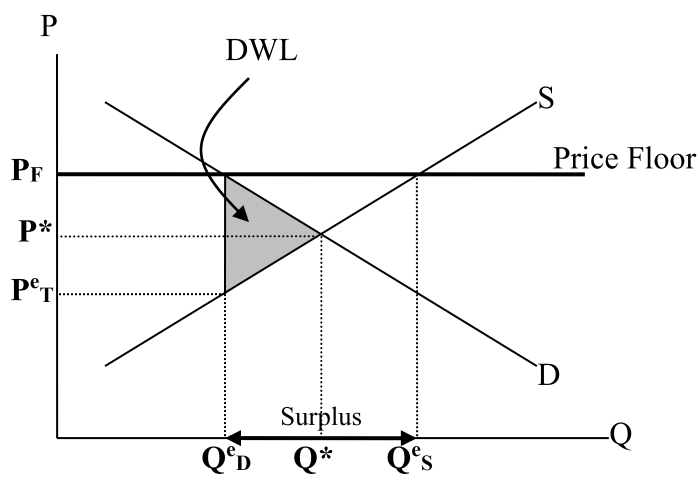
d. Because all organs, by law, must be donated (and not sold), it should not be surprising that there's a tremendous scarcity for organs (even if we assume demand is inelastic).

e. Not surprisingly, the true price manifests through personal connections or even the occasional under-the-table payment. Meanwhile, there are those willing to sell and buy organs (a practice which could save lives) but instead people die.

VII. The Minimum Wage

a. There are many examples of price ceilings but very few of price floors (**P_F**). However, the minimum wage is a prominent one.

b. In the market for labor, employees are the supply curve and employers are the demand curve.



c. Once again we see deadweight loss as those who wish to be hired at a lower wage cannot get employment even from those that would be willing to higher at that wage.

d. Instead of a shortage, we see a surplus (also known as unemployment[1]). Lots of people want to work for the higher salary (perhaps they are looking for a second job, want to work longer hours,

[1] There are many reasons unemployment exists, some unavoidable and some not. The minimum wage is one of those avoidable reasons.

or want to stop being a stay-at-home parent). At the same time, fewer people wish to hire at that wage (perhaps they decided to produce less, close shop, or invest in automation).

e. Again, the true price is different than the price floor (this is especially noticeable in other countries where the minimum wage and similar legislation makes hiring very expensive). It takes a long time to find a job. Personal contacts become more important. Firings become more likely. These are all costs the employee must bear.

f. Once again, those that most need a higher wage (immigrants, the mentally handicap, and new adults) are the ones most likely not to get any wage at all: they have the hardest time justifying the higher wage.