

## Price Controls: Price Ceilings and Floors

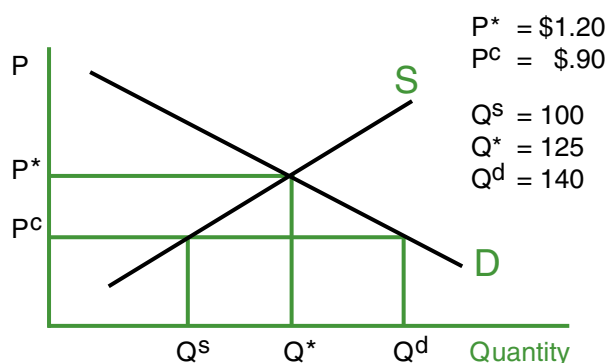
Sometimes the general public and/or governments feel that the forces of supply and demand result in prices that are either unfairly high to buyers or unfairly low to sellers. In such cases, government may intervene by legally limiting how high or low the price may go.

### A Price-Controlled Market: Price Ceilings

A price ceiling is the maximum legal price a seller can charge for a good or service. The rationale for ceiling prices is that they enable consumers to obtain some “essential” good or service that they could not afford at the equilibrium price. (Examples are provided in the Case Studies benchmark lesson). The figure at right illustrates the effect of one type of price control, price ceilings, on the market.

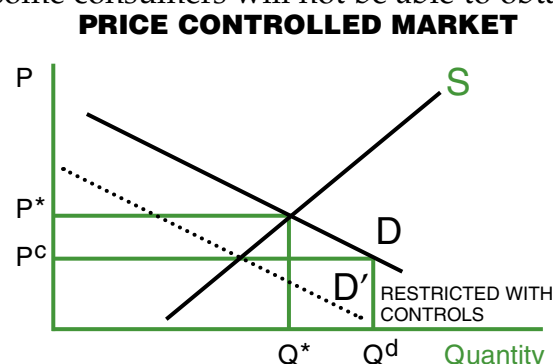
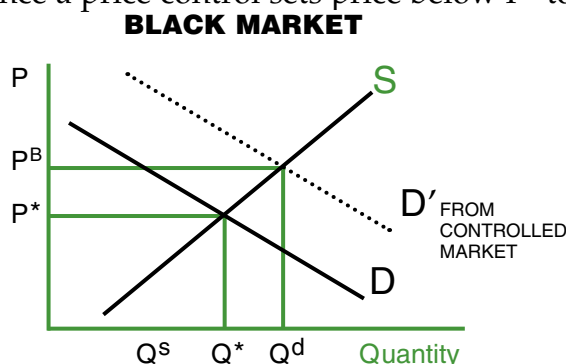
Let's say the market starts in equilibrium.  $P^*$  is the equilibrium price and  $Q^*$  is the equilibrium quantity. At  $P^*$  (\$1.20), the quantity demanded by consumers is exactly the same as that supplied by firms, and 125 units will be bought and sold. If price controls establish a ceiling below

\$1.20 (say \$.90), a shortage will ensue. At a price of \$.90, firms will only supply 100 units of the good, but consumers will be able and willing to pay for 140 units. The government will be faced with the problem of rationing the 100 units among 140 consumers (assuming one consumer per good). As long as price remains below  $P^*$ , the shortages will continue.



What if a black market exists in which the price of the good is allowed to rise? The consumers who are able and willing to pay a higher price for the good and do not obtain it in the legal market will move into the black market, thereby increasing demand for the good and its price in that market, as the figure below shows. This move may exacerbate shortages in the legal market if producers can capture the price increase in the black market by moving some of the supply from the lower-price legal market to the higher-price black market. The figure below illustrates the effect of a black market on demand.

Once a price control sets price below  $P^*$  to  $P^C$ , some consumers will not be able to obtain



the good, effectively reducing demand in the price-controlled market to  $D'$ . These individuals will move into the black market (assuming no additional costs are borne with this move), increasing demand for gasoline to  $D'$  in this market—which will increase price to  $P^B$  above the originally set price of  $P^*$ .

### A Price-Controlled Market: Price Floors

A price floor is a minimum price established by the government that is above equilibrium price. Price floors generally have been invoked when society has felt that the free-functioning market is not providing a sufficient price for the good. Minimum wage legislation and price supports for agricultural products are examples. The figure at right illustrates the effect of price floors on the market.

Let's say the market starts in equilibrium.  $P^*$  is the established price and  $Q^*$  is the established quantity. At  $P^*$  (\$1.20), the quantity demanded by consumers is exactly the same as that supplied by firms, and 125 units will be bought and sold. If a price floor is established above \$1.20 (say \$1.50), a surplus will ensue.

At a price of \$1.50, firms will supply 180 units of the good, but consumers will only be able and willing to pay for 50 units. The government will be faced with the problem of getting rid of 130 units. As long as price remains above  $P^*$ , the surpluses will continue. In the labor market, prices are wages and quantities are laborers and 130 workers would be able and willing to work, but employers would not hire them at the legally set wage.

