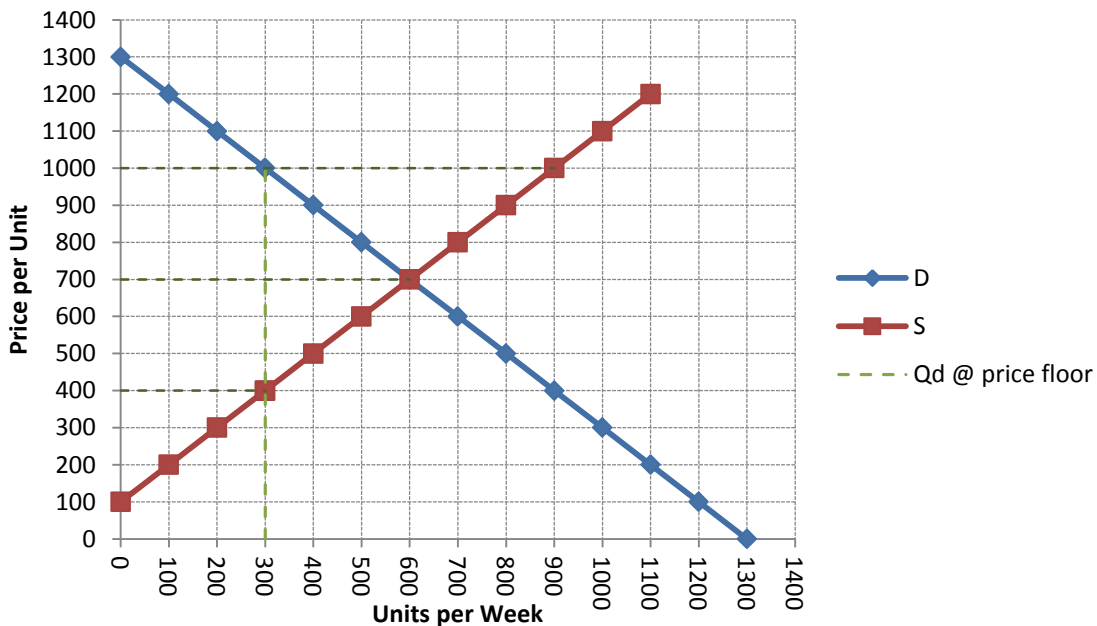


The table below shows the quantity of cheese demanded by and supplied to a city in a given week.

Quantity Demanded (units per week)	Price Per unit	Quantity Supplied (units per week)
0	1300	1200
100	1200	1100
200	1100	1000
300	1000	900
400	900	800
500	800	700
600	700	600
700	600	500
800	500	400
900	400	300
1000	300	200
1100	200	100
1200	100	0
1300	0	0



1. Ceteris paribus, at equilibrium, consumer surplus is $.5 \cdot 600 \cdot 600 = \$180,000$ per week, producer surplus is $.5 \cdot 600 \cdot 600 = \$180,000$ per week.
2. Suppose a price floor of \$1000 per unit is imposed on this market.
 - a. If the government **takes no other action with respect to the price floor**, consumer surplus is $.5 \cdot 300 \cdot 300 = \$45,000$ per week and producer surplus is $(.5 \cdot 300 \cdot 300) + (600 \cdot 300) = 45,000 + 180,000 = \$225,000$ per week.

See the graph above. At $P = \$1000$ per unit, $Q_d = 300$, so this is the amount that will be traded. The price on the supply curve that corresponds to this quantity is \$400 per unit.

- b. Why are your answers from part 1 and part 2a different?

In part 2a, some of the consumer surplus is transferred to the producers as a result of the price floor. In addition, the price floor generates a deadweight loss.

- c. If the government **supports the price floor by buying up the surplus cheese**, it will need to spend $\$1000*(900-300) = \$600,000$ per week.
- d. If the government **supports the price floor by buying up the surplus cheese**, consumer surplus is $.5*300*300 = \$45,000$ per week.
- e. Why are your producer surplus values from part 2a and 2d different?

When the government buys up the surplus cheese, it effectively pushes the demand curve out to reach an equilibrium at $P = 1000$, $Q = 900$. This increases the amount of producer surplus to cheese producers.

3. Who is helped by the imposition of the price floor in the market above?

Producers are helped. If the government does nothing but impose the price floor, their producer surplus rises from \$180,000 per week to \$225,000 per week. If the government imposes the price floor and supports it by buying up surplus cheese, producer surplus rises from \$180,000 to \$405,000 per week.

4. Who is hurt by the imposition of the price floor in the market above?

Consumers are hurt. Their consumer surplus falls from \$180,000 per week to \$45,000 per week as a result of the price floor. If the government buys up the surplus cheese created from the price floor, taxpayers are hurt because they must spend \$600,000 per week.

5. If price supports cause inefficiency in the economy, why we have them?

Answers vary, but political power certainly plays a role here.