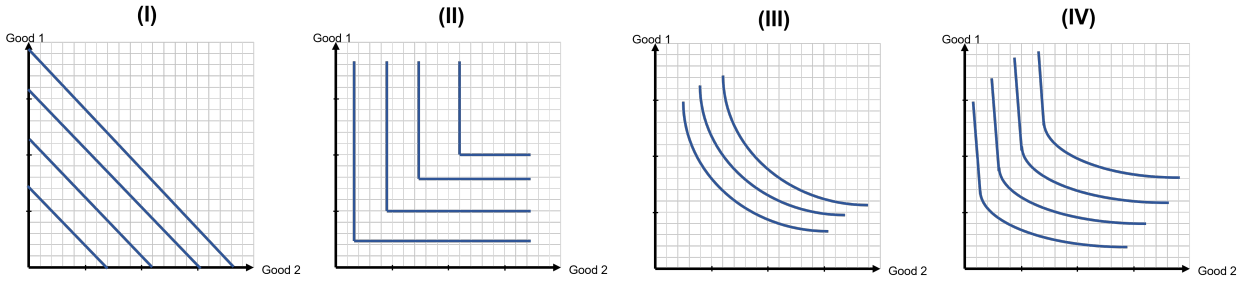
SS201: Principles of Economics
AY 23-2
Lesson 8: Economic Welfare and Government Intervention

1 Review

Indicate the answer choice that best completes the statement or answers the question.



1. Which set of indifference curves above reflect two goods that are perfect substitutes?
    a. I
    b. II
    c. III
    d. IV

2. Using the same figure as in question 1, what set of indifference curves reflect goods that are perfect complements?
    a. IV
    b. II
    c. III
    d. I

3. Goods that are inelastic have elasticities that range between:
    a. $1 < \epsilon < \infty$
    b. $-\infty < \epsilon < 0$
    c. $0 < \epsilon < 1$
    d. $1 < \epsilon < 2$

4. The sign of a cross-price elasticity for goods that are substitutes will be:
    a. Positive
    b. Negative
    c. Ambiguous. Depends on the two goods.
    d. Does not exist. We cannot determine elasticities between two goods.

2 Bottom Line Up Front

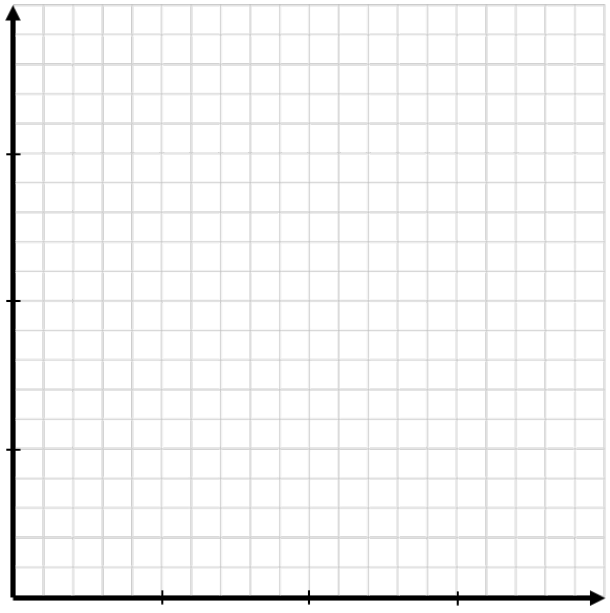
Consumer and producer surplus are terms that help us understand market efficiency and a group's overall economic well-being. Price floors and ceilings are policy initiatives that, when binding, make free markets less efficient and reduce economic well-being. Depending on who or what group the government is trying to help, policy initiatives such as the minimum wage or rent controls may hurt overall economic well-being for the benefit of select individuals.

3 Welfare Economics

Andy Dufresne really likes listening to opera music. Suppose that the market for opera music records is modeled by the equations below:

$$Q_D = 100 - 5P$$
$$Q_S = -10 + P$$

1. Graph the market below, solve for equilibrium price, and quantity and shade in producer and consumer surplus.



2. Which group, consumers or producers, fairs better within this market?

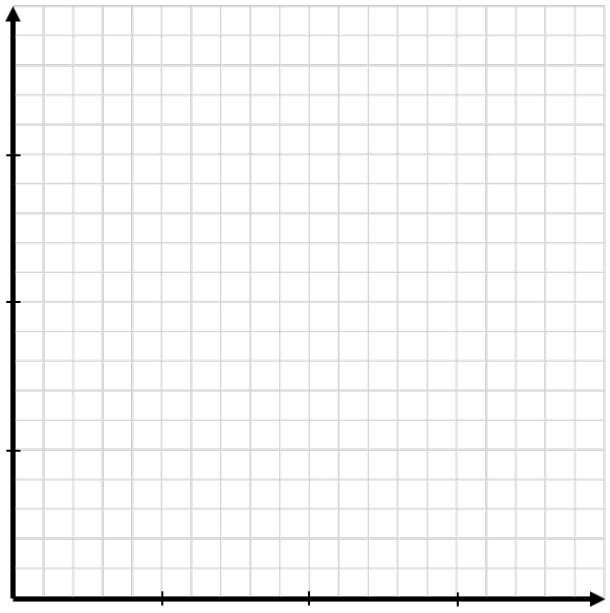
4 Rent Controls

Brooks Hatlen just got released from prision. To help transitioning prisoners, the state introduced a rent control policy which states that landlords can't charge over $600 per month for apartments. Suppose the market supply and demand are modeled by the equations below:

$$Q_D = 1300 - P$$

$$Q_S = -300 + P$$

1. Graph the market below, solve for equilibrium price, quantity, and shade in producer and consumer surplus.



2. Now draw in the rent control. Is it binding? Does it create a shortage or surplus? Solve for the equilibrium price and quantity of aparments that will be provided at this price. Is this a price floor or ceiling?

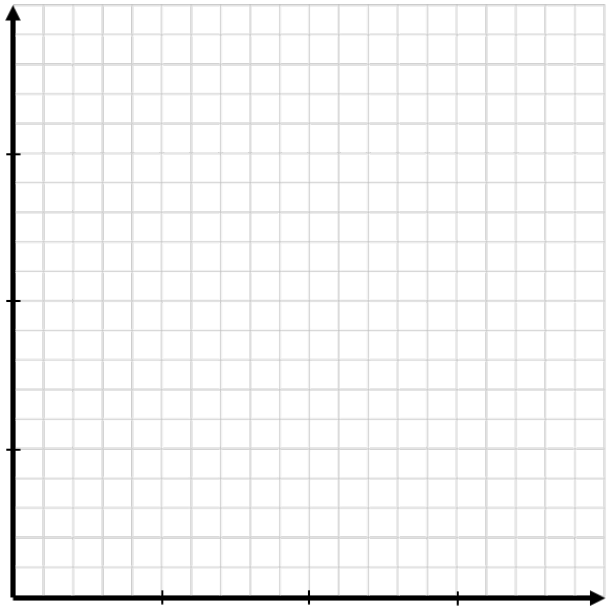
5 Minimum Wage

Tommy Williams just got out of jail and recently received his GED. He takes up a job at a local paper mill where the market equilibrium wage is given below:

$$Q_{LD} = \frac{-400}{3}W + 2600$$

$$Q_{LS} = \frac{400}{3}W - 600$$

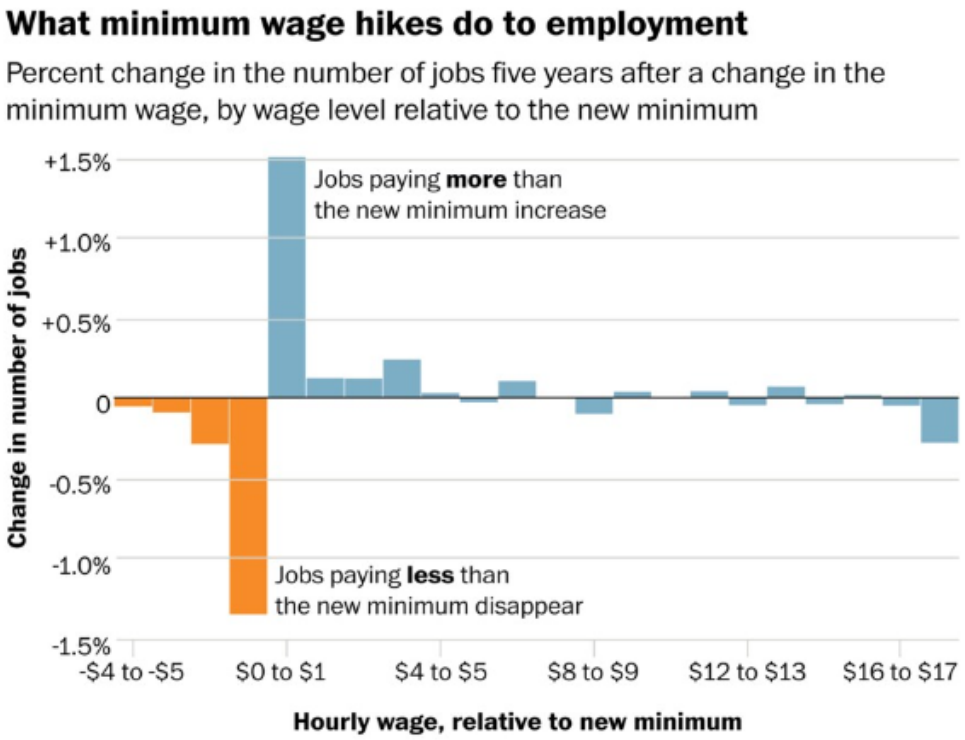
1. Graph the market below, solve for equilibrium price, quantity, and shade in producer and consumer surplus.



2. b. Maine (the state our movie takes place in), just implemented a minimum wage of \$15. Is it binding? Does it create a labor shortage or surplus? Solve for the actual employment (labor supply) at this price. Is this a price floor or ceiling?

6 Does the model hold?

6.1 Jobs



6.2 Worker Welfare

A new analysis of the effects of raising the U.S. federal minimum wage

Impact of a 10 percent increase in the minimum wage on shares with cash income below multiples of federal poverty threshold, averaged across all family types

Share with income less than:								
50% of FPT	-2.19%	-5.06%	-5.99%	-4.43%	-1.86%	-4.70%	-6.70%	-4.60%
	(1.37%)	(1.34%)	(2.95%)	(2.83%)	(1.24%)	(1.27%)	(2.35%)	(2.58%)
75% of FPT	-1.86%	-2.43%	-4.07%	-3.27%	-2.77%	-3.72%	-6.52%	-5.58%
	(0.92%)	(0.84%)	(1.89%)	(1.87%)	(0.89%)	(0.93%)	(1.73%)	(1.74%)
100% of FPT	-2.20%	-2.27%	-3.10%	-2.96%	-3.09%	-3.37%	-5.52%	-5.33%
	(0.84%)	(0.77%)	(1.43%)	(1.47%)	(0.71%)	(0.74%)	(1.35%)	(1.30%)
125% of FPT	-1.88%	-2.35%	-1.64%	-2.13%	-2.43%	-2.98%	-2.93%	-3.44%
	(0.64%)	(0.63%)	(1.09%)	(1.09%)	(0.76%)	(0.70%)	(1.16%)	(1.09%)
150% of FPT	-0.71%	-1.52%	-0.48%	-1.12%	-0.91%	-1.56%	-0.99%	-1.57%
	(0.64%)	(0.61%)	(0.87%)	(0.88%)	(0.67%)	(0.70%)	(0.93%)	(0.98%)
Control sets:								
Division-period FE			●	●			●	●
State trends		●		●		●		●
State-recession FE					●	●	●	●

Source: Arindrajit Dube, "Minimum wages and the distribution of family incomes," Washington Center for Equitable Growth Working Paper (Washington Center for Equitable Growth, 2017), Table 3, http://equitablegrowth.org/working-papers/minimum-wages-and-family-incomes/.

Equitable Growth