Government Intervention in the Market:

Price Floors and Price Ceilings

How Did They Have Such Nice Apartments on “Friends”?

- Monica’s (“Friends”) place is somewhere between 1,200 and 1,500 square feet

- The explanation given on “Friends” is that Monica was subletting her grandmother’s rent-controlled apartment

- Rent-control only applies to tenants who have been living in an apartment since July 1, 1971 or earlier

- The rent on those apartments cannot be raised as long as that tenant still lives there

Note: “Friends ” is a TV show (1994-2004)

Learning Objective:

1. *Distinguish between the concepts of* ***consumer surplus*** *and* ***producer surplus***

2. *Understand the concept* ***deadweight loss*** *and* ***economic efficiency***

3. *Explain the economic effect of government-imposed* ***price ceilings and price floors***

Consumer Surplus

Surplus (noun): Something that remains above what is used or needed

- **Consumer surplus** is the difference between the highest price a consumer is willing to pay for a good or service and the actual price the consumer pays.
    - E.g., Movie-Amazon prime

Producer Surplus

- **Producer surplus** is the difference between the lowest price a firm would be willing to accept for a good or service and the price it actually receives.
    - E.g., Turkish market

Economic efficiency

- **Economic efficiency**: A market is efficient if it maximizes the sum of consumer and producer surplus (i.e., the total net benefit to consumers and firms), known as the *economic surplus.*

Figure 4.7 When a Market Is Not in Equilibrium, There Is a Deadweight Loss

When the price of chai tea is \$2.20 instead of \$2.00, consumer surplus declines from an amount equal to the sum of areas *A*, *B*, and *C* to just area *A*.

Producer surplus increases from the sum of areas *D* and *E* to the sum of areas *B* and *D*.

Economic surplus decreases by the sum of areas *C* and *E*.

	At Competitive Equilibrium	At a Price of \$2.20
Consumer surplus	*A* + *B* + *C*	*A*
Producer surplus	*D* + *E*	*B* + *D*
Deadweight loss	None	*C* + *E*

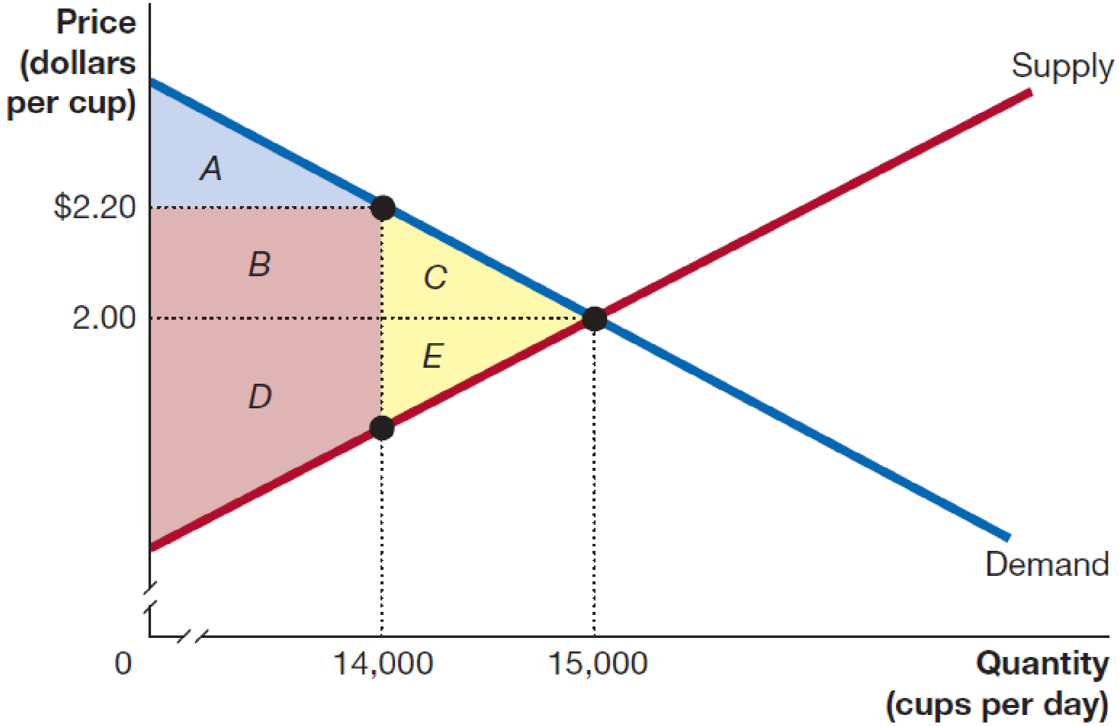
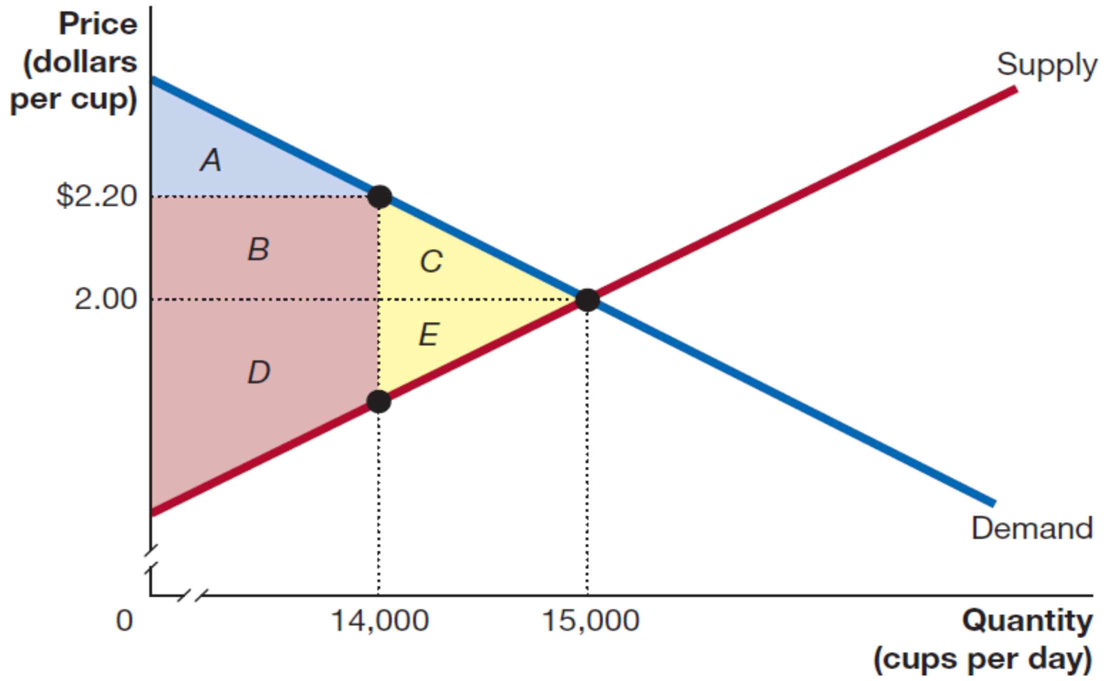


Figure 4.7 When a Market Is Not in Equilibrium, There Is a Deadweight Loss (2 of 2)

The reduction in economic surplus resulting from a market not being in competitive equilibrium is known as **deadweight loss**.

Deadweight loss can be thought of as the amount of inefficiency in a market. In competitive equilibrium, deadweight loss is zero.

	At Competitive Equilibrium	At a Price of \$2.20
Consumer surplus	$A + B + C$	A
Producer surplus	$D + E$	$B + D$
Deadweight loss	None	$C + E$



Price Floors and Price Ceilings

Options for government to influence the market:

- **Price ceiling**: A legally determined maximum price that sellers may charge
  - For the <u>price ceiling </u>to affect the equilibrium price need to be set *below the equilibrium price*

- **Price floor**: A legally determined minimum price that sellers may receive
  - For <u>price floor </u>to affect the equilibrium price need to be *set above the equilibrium price*

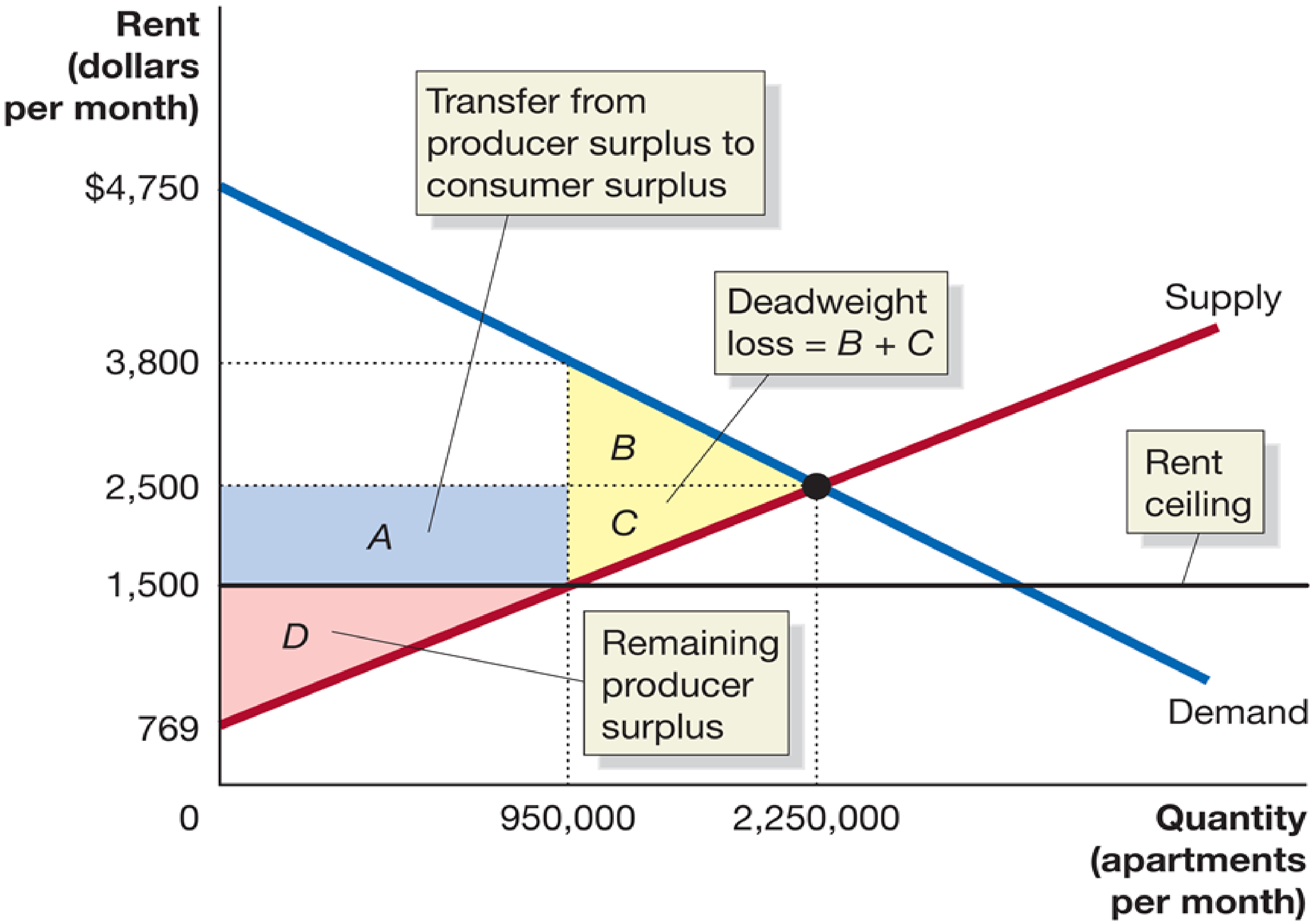
Question:

1. What type of price control is a rent control ?

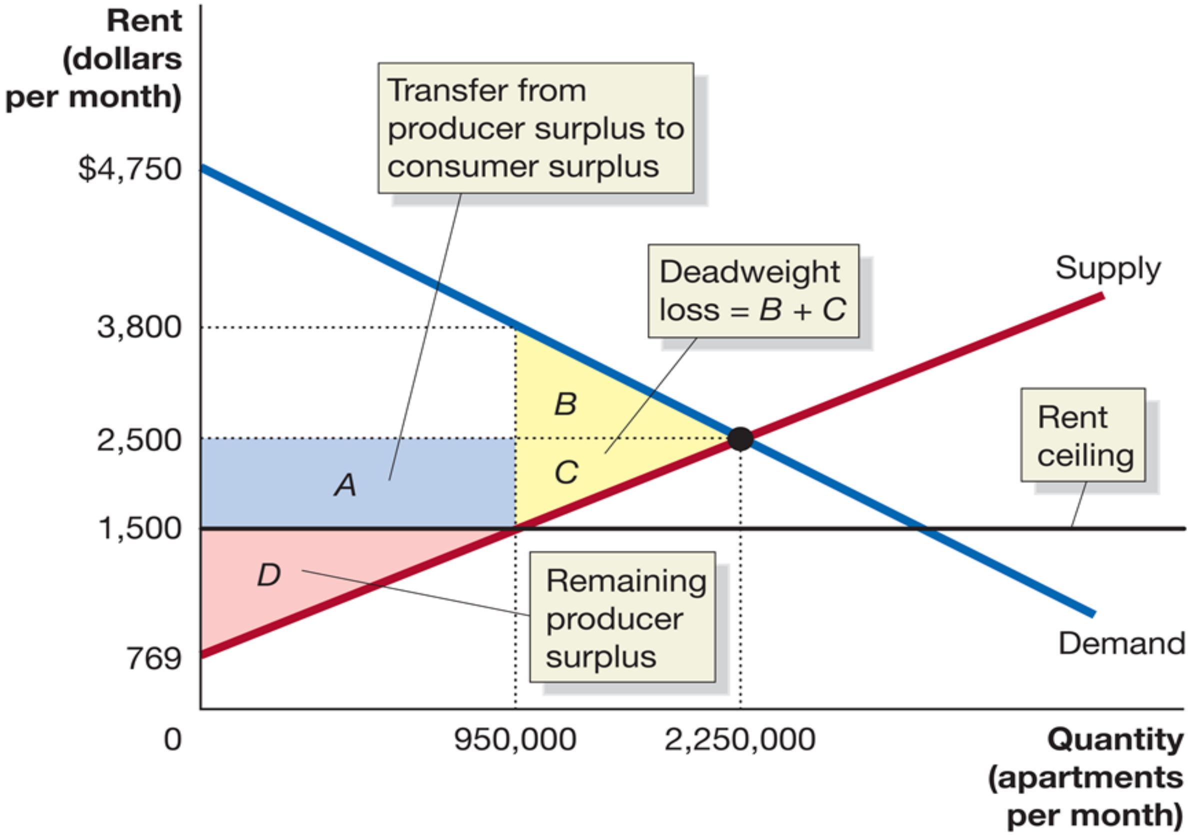
    A) Price Floor ❤️

    B) Price Ceiling 👍

The Economic Effect of Rent Controls (1 of 3)

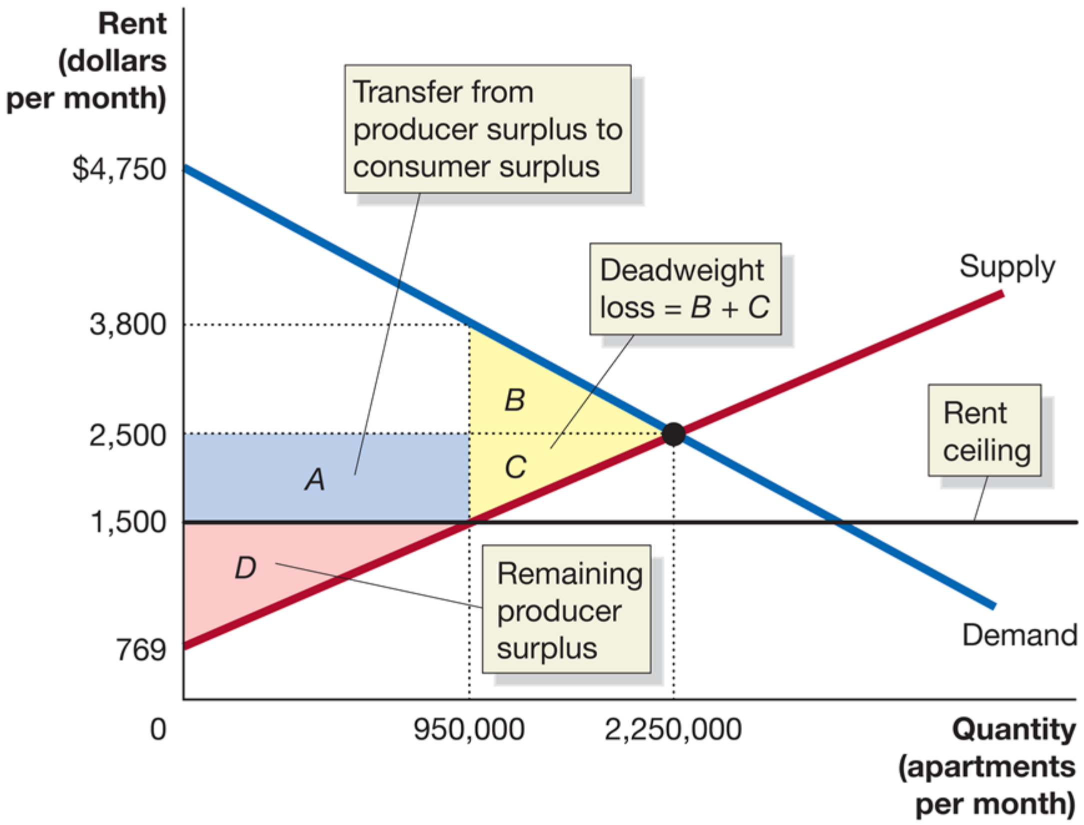


The Economic Effect of Rent Controls (2 of 3)



- Producers lose area *A* ($950 million) and area *C* ($650 million); They originally had a surplus of $1947.375 million, so now producer surplus is $347.375 million
- Consumers lose area *B* but gain the area of rectangle *A*. So, consumer surplus changes from $2531.25 million to $2636.25 million
- Triangles *B* + *C* represent the deadweight loss, which is $1,495 million

The Economic Effect of Rent Controls (3 of 3)



Consumer Surplus

Competitive Equilibrium	Rent Control
$ 2,531	$ 2,636

Producer Surplus

Competitive Equilibrium	Rent Control
$ 1,947	$ 347

Deadweight Loss

Competitive Equilibrium	Rent Control
$ 0	$ 1,495

Consequences of Price Controls

When government imposes price controls:

- Some people are made better off,
- Some people are made worse off, and
- There is a loss of economic efficiency

Positive and Normative Analysis of Price Ceilings and Price Floors

- **Positive analysis**: empirical evidence (what is)
- **Normative analysis**: value judgments (what should be)

- Economic analysis can demonstrate that price ceilings and price floors decrease economic efficiency. *Does this mean they are bad?*
    - Because this is a normative question, it does not have a right or wrong answer; it depends on our values and judgments. It is possible to value the gains from these policies more than the losses.

Podcasts

1. How Venezuela Imploded | Planet Money

Venezuela has just about every economic advantage a country could ask for, but the economy collapsed, and price control made things even worse

2. Why Uber is an economist's dream | Freakonomics

Use Uber's wealth of data to answer one of the "most elusive questions" in economics. *"What really is a demand curve?"*

3. Why Economists Hate Gifts | Planet Money

Who better to explain deadweight loss and allocative efficiency than children? Warning: You'll never view gift-giving holidays the same way again. Listen at your own risk.

Just Go with It (Adam Sandler) – consumer surplus and producer surplus (2 min) | **YouTube**

Who is the buyer who is the seller? What is the consumer surplus what is the producer surplus?

Thank You !

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Question:

2. What type of price control is the minimum wage?

A) Price Floor

B) Price Ceiling