



- **Outline:**
- I. Price Elasticity of Demand
- II. Price Elasticity of Demand - Graphically
- III. Determinants of Price Elasticity of Demand
- IV. Elasticity and Total Revenue
- V. Elasticity of Supply
- VI. Elasticity of Supply Graphically
- VII. Determinants of Elasticity of Supply
- VIII. Income Elasticity
- IX. Cross-Price Elasticity of Demand

Chapter 5 Elasticity and Its Applications, p. 81

TIME FOR REVIEW



IClicker – REEF POLLING



Which situation below shows an ELASTIC consumer response?

A



B





A. New York City Opera

B. New York City Transit Authority

When the New York City Opera was faced with a growing deficit, it cut its ticket prices by 20% hoping to attract more customers. At the same time, the New York City Transit Authority raised subway fares to reduce its growing deficit. Which group is assuming that the demand from their consumers is relatively inelastic?

Josie's Restaurant currently has this poster hanging in their restaurant. During "senior's time" adults of age 55 and older pay 20% less than other people in the restaurant at the same time. The owners must be assuming that the demand of seniors for eating at their restaurant between 2:30-5:30 in the afternoon is relatively more _____ than the demand of younger people.

A. ELASTIC

B. INELASTIC



The Impact of
Hurricane
Michael on
Elasticity of
Supply-2018





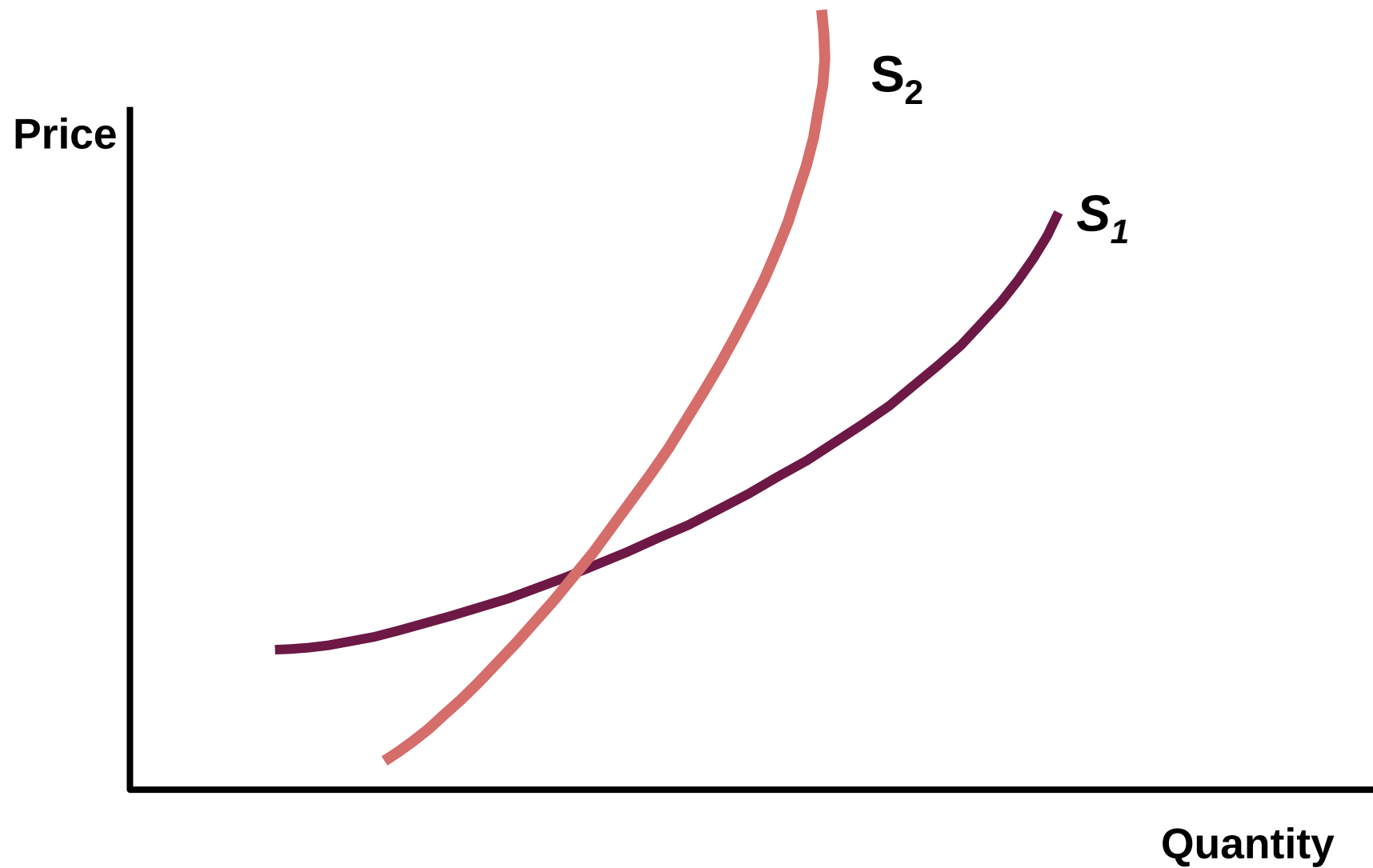
FEMA







Decrease in overall elasticity of supply



**TIME FOR
NEW
CONTENT**



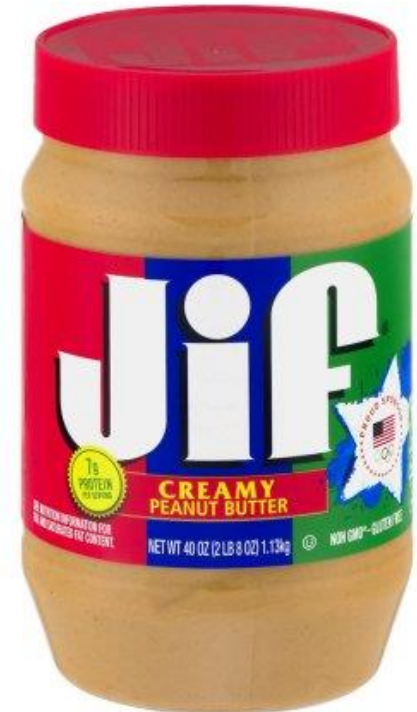
IX. Cross-Price Elasticity of Demand, p. 92

- $X_D = \frac{\% \Delta \text{ in Demand}}{\% \Delta \text{ in Price of Related Good}}$
-
- If $X_D > 0$
- As P related good rises, Q_D of X rises
- **SUBSTITUTES IN CONSUMPTION**
-
- If $X_D < 0$
- As P related good rises, Q_D of X falls
- **COMPLEMENTS IN CONSUMPTION**
-
- What if $X_D = 0$?
- No relationship between the two products

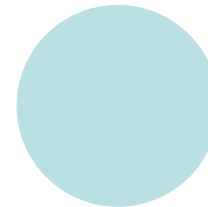
Example: The price of peanut butter increases from \$2.50 to \$3.00 and the quantity of jelly demanded falls from 30 units to 24 units. Find X_D .

$$X_D = \frac{\frac{24 - 30}{5.50}}{\frac{3.00 - 2.50}{5.50}} = \frac{\frac{-6}{5.50}}{\frac{.50}{5.50}} = \frac{-1}{1} = \left(-\frac{1}{9}\right)\left(\frac{11}{1}\right) = \frac{-11}{9}$$

Since $X_D < 0$, goods are complements
Since $|X_D| > 1$, response is elastic



- heroin and cocaine?
 - $X_D > 0$
 - substitutes
 - heroin and marijuana?
 - $X_D = 0$
 - no relationship
 - cigarettes and marijuana?
 - $X_D < 0$
 - Complements
 - cigarettes and alcohol?
 - $X_D < 0$
 - Complements
-



IClicker – REEF POLLING





If we calculate the cross-price elasticity of demand between regular cigarettes and e-cigarettes, we are likely to find a value

- A. Equal to zero
- B. Greater than zero
- C. Less than zero
- D. Equal to 1



Suppose that the cross-price elasticity of demand between McDonald's hamburgers and Burger King hamburgers is .08.

- $X_{MB} = .08$.
- What does this number mean? Interpret.
- What does this imply about competition between McDonalds and Burger King?
- If you were on the marketing team at McDonalds, how would you respond?



Government Intervention in the Market, Chapter 6, P.99

MARKETS DETERMINE PRICES



What if we are
concerned that
the market
price is too
high or too
low?



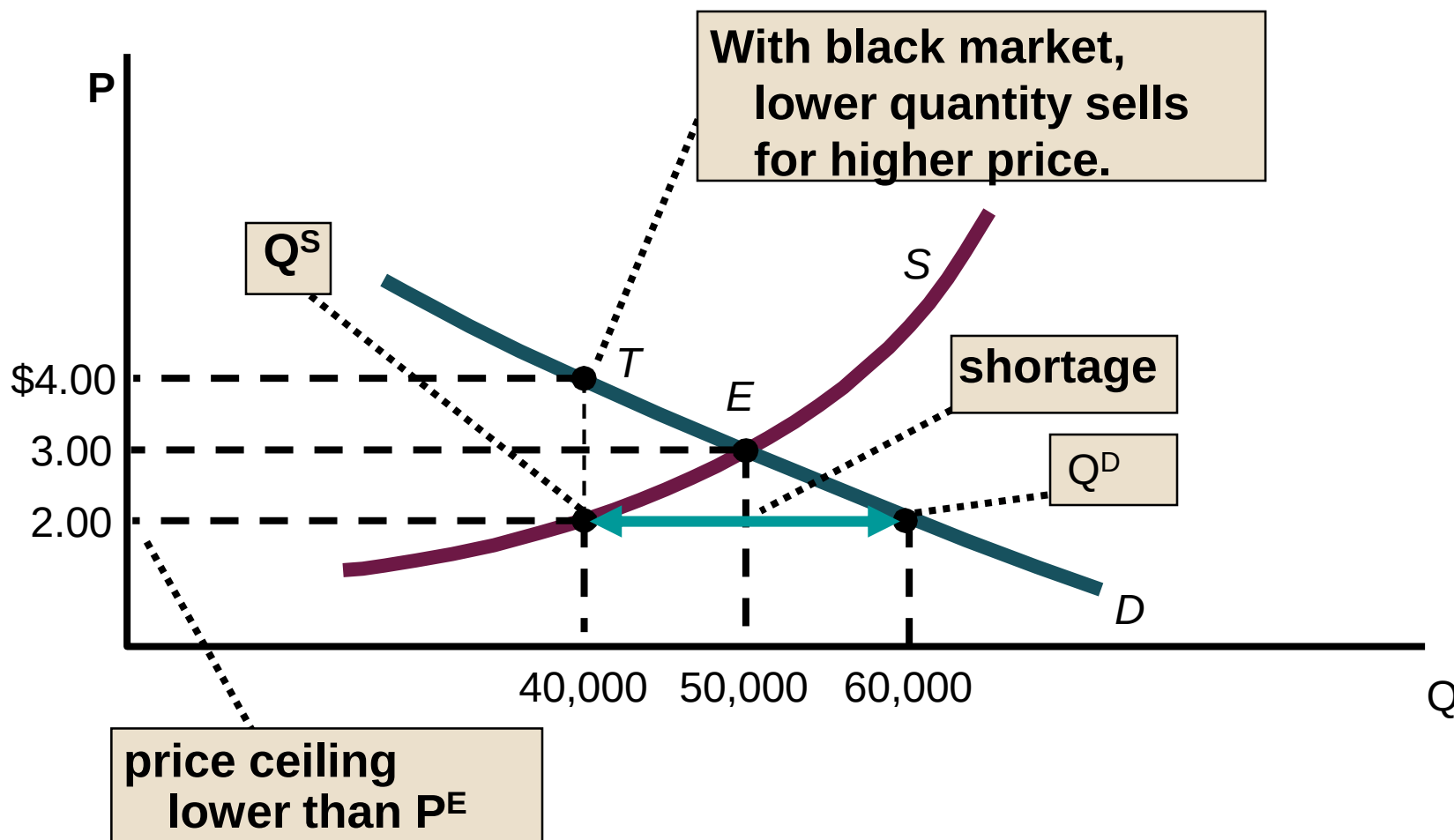


I. PRICE CEILING (PRICE CAP) P. 99

A legal maximum on the price at which a good can be sold

Government in the Market Place, p. 99

Price Ceiling - an upper limit on the price level



- If $P^C > P^E$, not binding
- If $P^C < P^E$, is binding
- Binding: keeps price from reaching equilibrium price level.
- Result of binding price ceiling – shortage

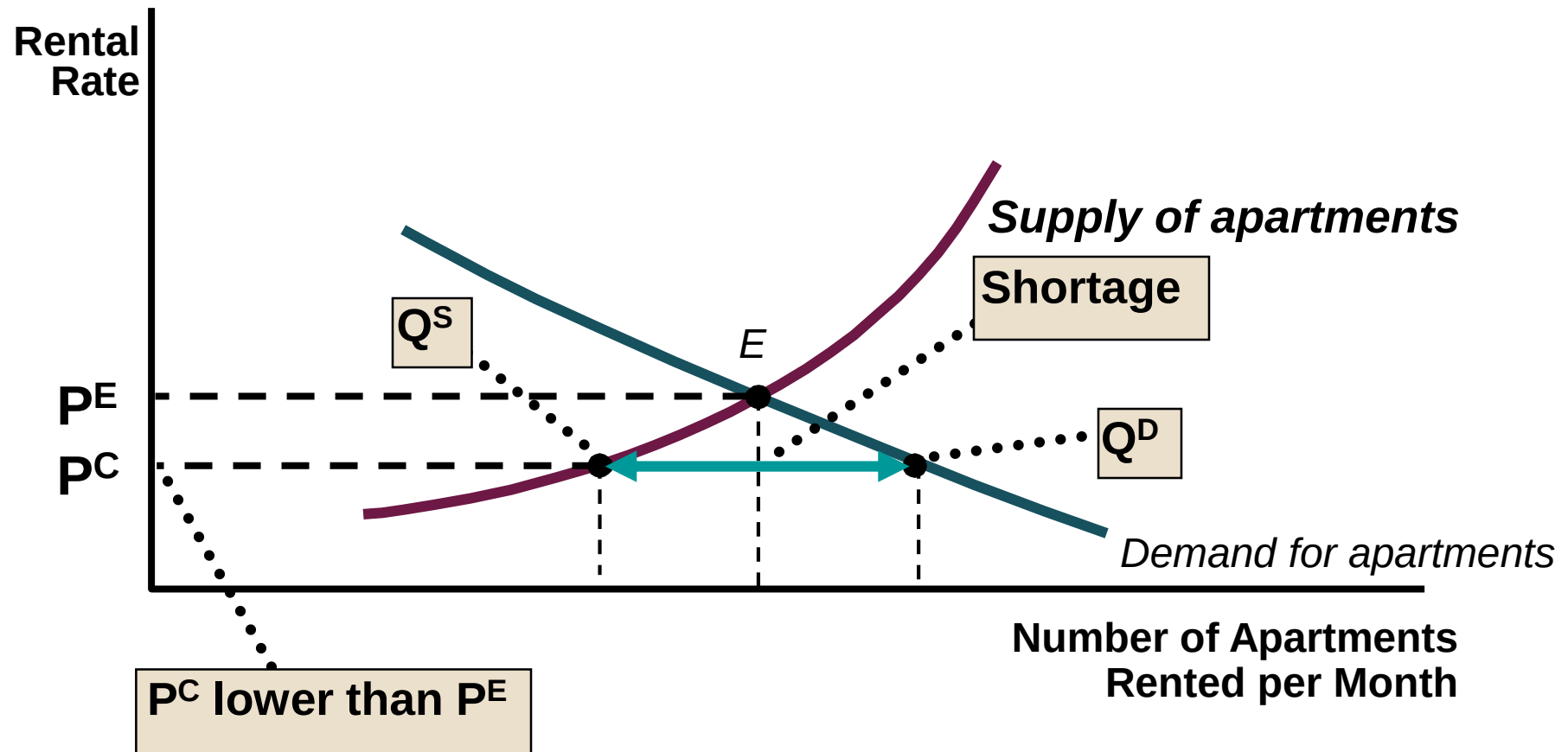
Application of Price Ceiling – Rent Control

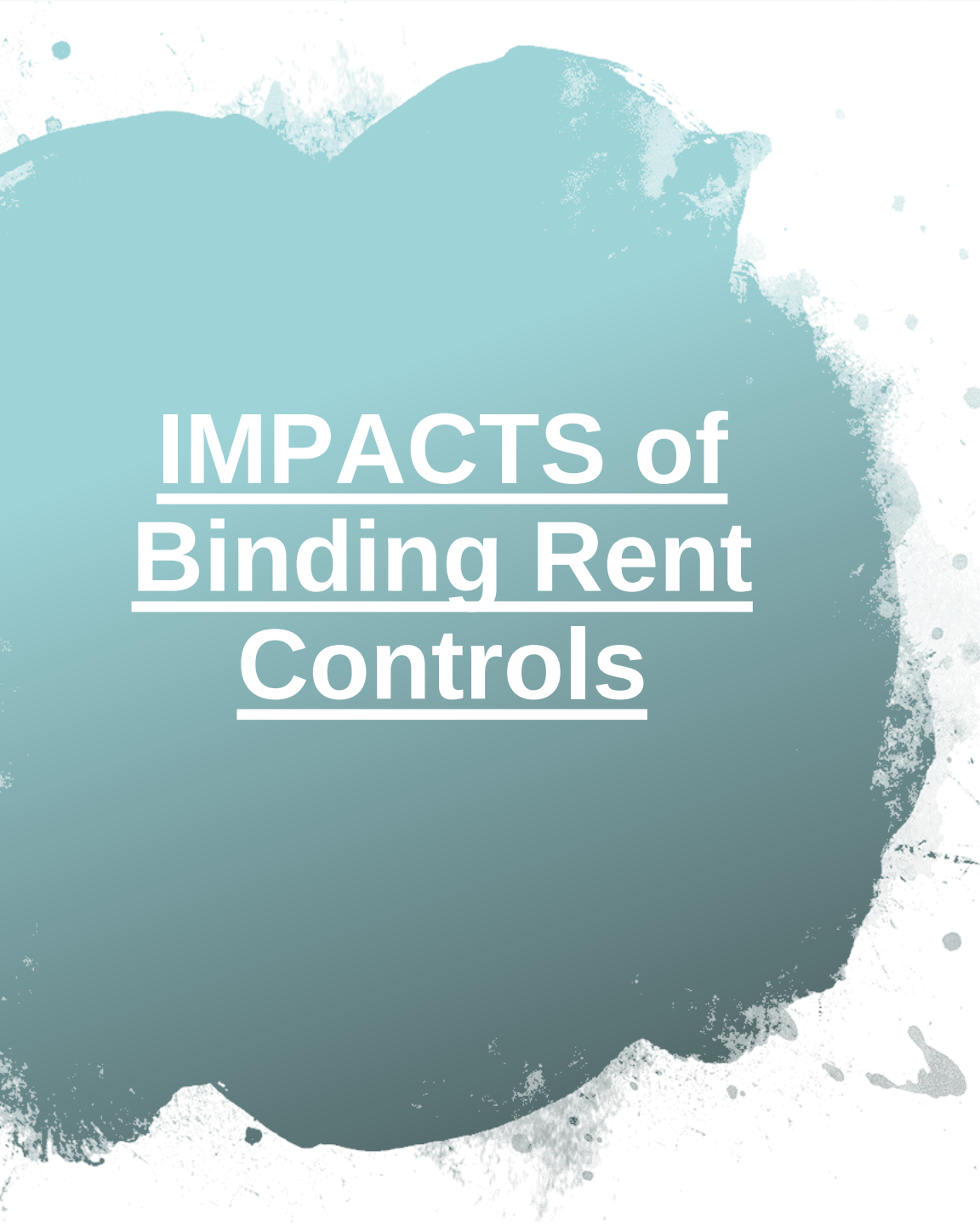
p. 100 in packet



- **WHAT** is it?
- **WHY?**
- **WHERE?**

Rent Control



A large, abstract teal watercolor splash shape on the left side of the slide, with various shades of blue and green and some white speckles.

IMPACTS of Binding Rent Controls

- **shortages - excess demand**
- **black markets-operates outside of the legal system**
- **nonprice ways of rationing emerge - entrance fees (“KEY MONEY”)**
- **higher search costs**
- **declines in the quality and maintenance of rental housing**
- **future supply will decline**

IClicker – REEF POLLING



Price (in \$s)	Quantity Demanded	Quantity Supplied
\$1,200	1	13
\$950	3	11
\$800	7	7
\$640	9	5
\$450	13	4
\$210	18	2
\$95	22	0

If a price ceiling is placed at \$950 in this market

- A. There will be a surplus of 8 units.
- B. There will be a shortage of 8 units.
- C. There will be no shortage or surplus.

II. Price Floor, p. 101

- A legal minimum on the price at which a good can be sold
- Example: Agricultural price supports





- Produces necessities
- Subject to natural disaster and volatile weather
- An “abundant” crop and the market

Why government intervention
in agricultural markets?

A Price Floor in the Market for Nonfat Dry Milk

Price Floor - a lower limit set on a price

