

# 10.55 PT. 2 - FIRM COSTS

**10.55 pt. 2- Demonstrate an understanding of different types of cost and their relationship to one another.**

**By: Carter Greene**

# KICKOFF:



- ❖ Go to Google Classroom and complete the assignment “**12/5- K0**”
- ❖ Pick up both handouts on the way in
- ❖ The one labeled *Shifts in Cost Curves* will be used to answer the K0 questions
- ❖ **Roll Call:** Best Jersey in sports?



# ANNOUNCEMENTS:

- ❖ **12/9- Quiz**
  - Will talk about the quiz at the end of class
- ❖ Homeroom this week
  - Knight Time next week
  - Will be having KT for Micro

# PRODUCTION FUNCTION AND COST PRACTICE SHEET- 30 MINUTES

- ❖ Finish the Production Function and Cost Practice sheet from yesterday
- ❖ May continue to work with people around you
  - Combine and collaborate, not divide and conquer
- ❖ If you finish early begin working on the alphabet soup sheet

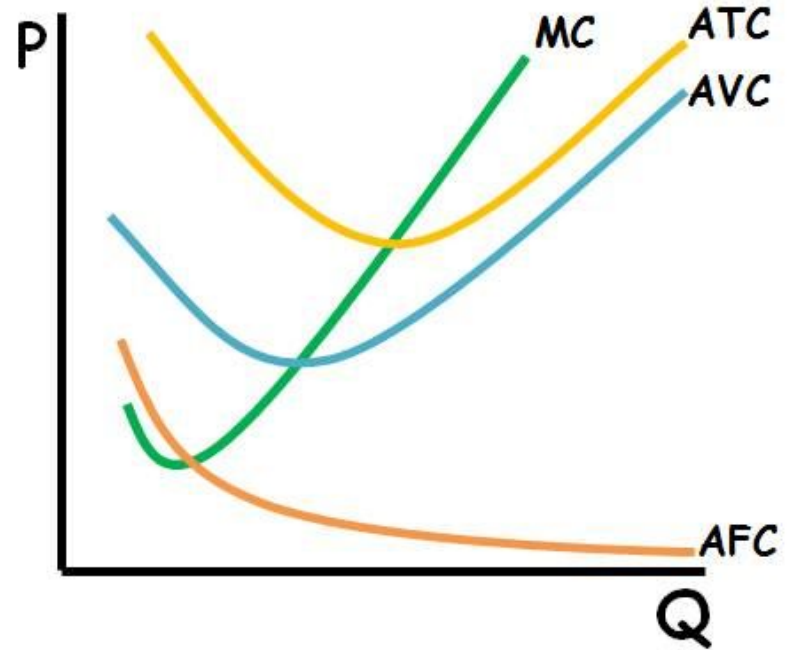
# 10.55 PT. 2 - FIRM COSTS

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# KEY POINTS TO COST CURVES

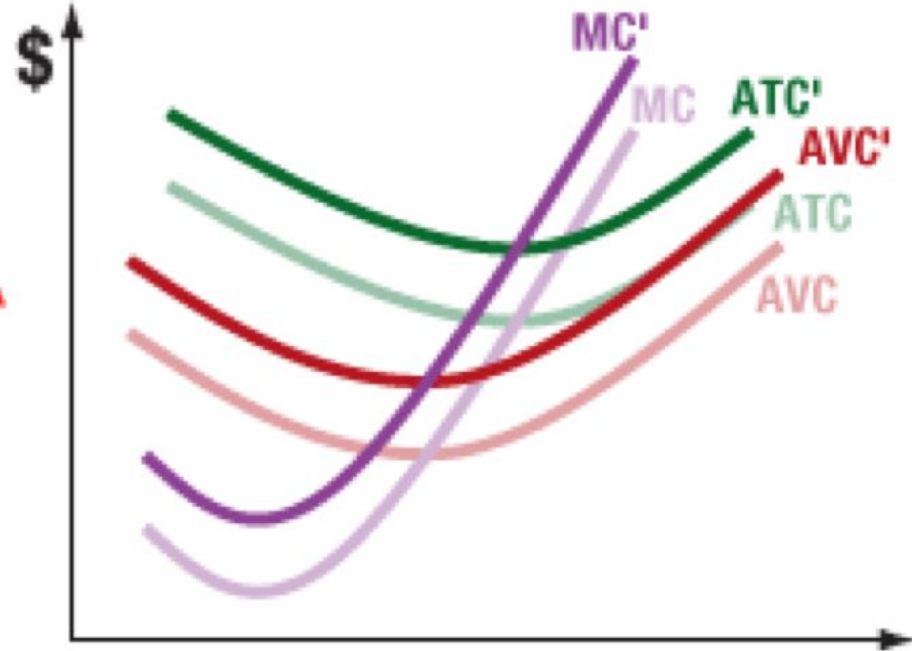
- ❖ MC, ATC and AVC start decreasing and then increase
  - U-shaped
- ❖ AFC is always decreasing
- ❖ ATC is always above AVC and AFC
- ❖ MC always intersects AVC and ATC at their minimum points
  - ATC and AVC are always 'chasing MC'
- ❖ Distance between ATC and AVC is always equal to AFC



# COST CURVE SHIFTS

# INCREASE IN PRICE OF VARIABLE INPUT

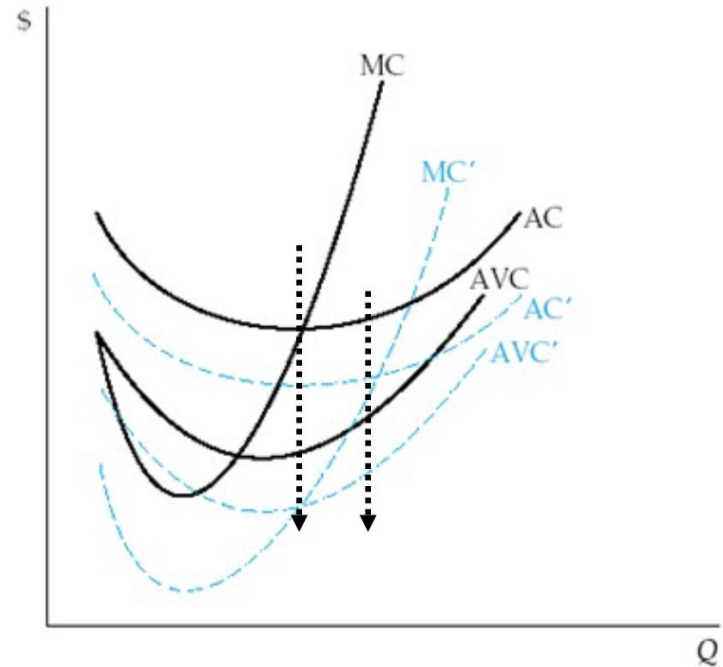
- ❖ Curves to shift:
  - ATC, AVC and MC
- ❖ Direction of shift:
  - Up
- ❖ Shape stays the same
- ❖ Ex: (minimum) Wage increase, excise tax, cost of dough for pizza parlor, etc.





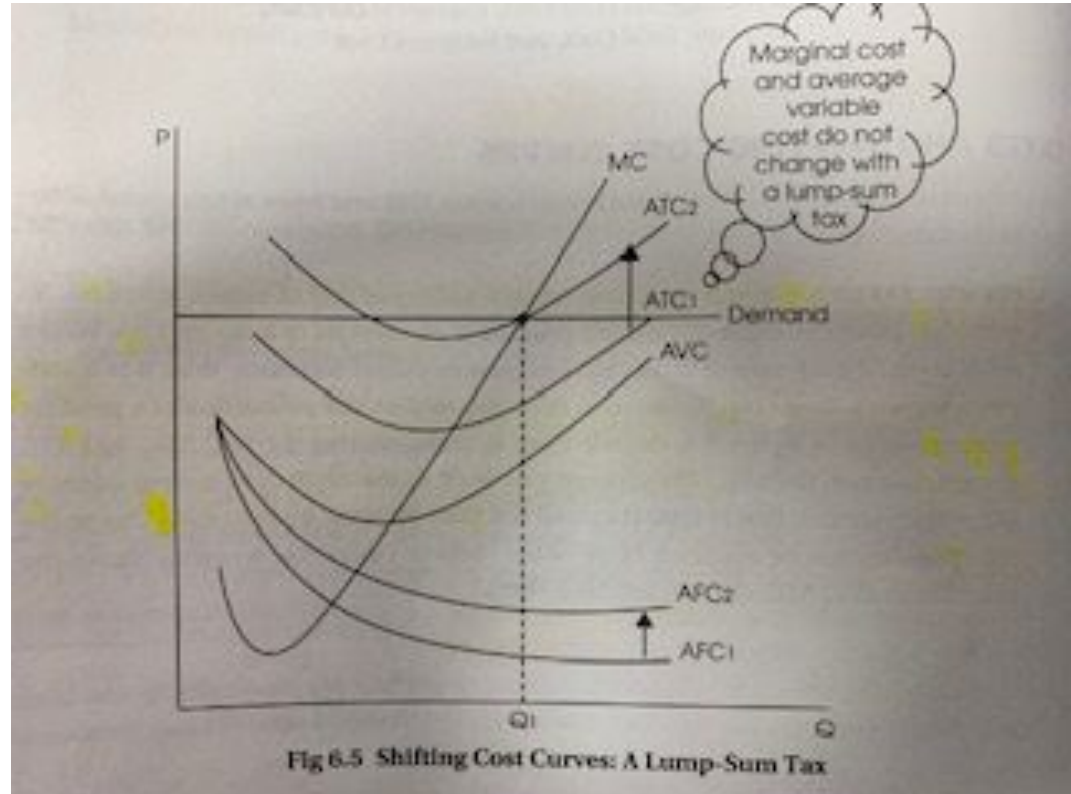
# DECREASE IN PRICE OF VARIABLE INPUT

- ❖ Curves to shift:
  - ATC, AVC and MC
- ❖ Direction of shift:
  - Down
- ❖ Shape stays the same.
- ❖ Ex: (minimum) Wage decrease, excise tax, cost of dough for pizza parlor, etc.



# INCREASE IN PRICE OF FIXED INPUT

- ❖ Curves to shift:
  - ATC and AFC
- ❖ Direction of Shift:
  - Up
- ❖ Shape stays the same
- ❖ Ex: Lump Sum Tax, Rent goes up, etc.



# ALPHABET SOUP

- ❖ Tons of Acronyms and weird variables/symbols in economics
- ❖ Use this sheet to record what they stand for, their definition, and their formula(s)
- ❖ This should provide you with a great study device that will provide you with the tools you'll need to combine with critical thinking skills to be successful in this unit.

CLOSURE

PARTNER MULTIPLE  
CHOICE PRACTICE

1) A firm is producing 100 units of output at a total cost of \$400. The firm's average variable cost is \$3 per unit. What is the firm's total fixed cost?

a) \$1

b) \$50

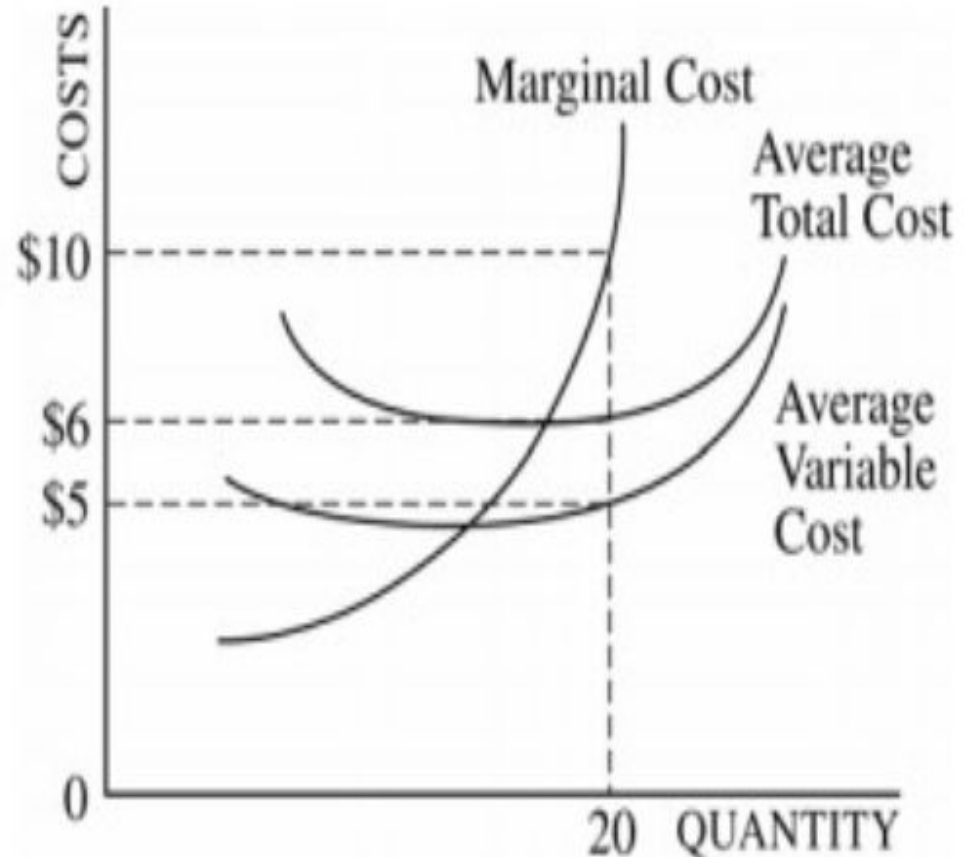
c) \$100

d) \$300

e) \$400

1) The graph above shows the cost curves for a competitive firm that produces 20 units of output. What are the total cost and the total fixed cost of producing 20 units of output?

- a)  $TC = \$10$ ;  $TFC = \$0$
- b)  $TC = \$120$ ;  $TFC = \$100$
- c)  $TC = \$120$ ;  $TFC = \$20$**
- d)  $TC = \$200$ ;  $TFC = \$100$
- e)  $TC = \$200$ ;  $TFC = \$20$



1) Assume that total fixed costs are \$46, that the average product of labor is 5 units when 10 units of output are produced, and that the wage rate is \$12. If labor is the only variable input, what is the average total cost of producing 10 units of output?

a) \$2

b) \$5

c) \$7

d) \$9

e) \$12



# FREE RESPONSE REVIEW QUESTION

- ❖ Using all the information you've learned the past two classes, complete this FRQ with the person next to you.

# CLOSURE

❖ Let's look back at the KO from Monday

# THERE ARE MORE THAN ONE WAY TO FIND DIFFERENT TYPES OF COST

- ❖  $AVC = TVC/Q$ 
  - $TVC = (AVC)(Q)$
- ❖  $TC = TFC + TVC$ 
  - $TC = (ATC)(Q)$
  - $TVC = (AVC)(Q)$