Short-Run Costs and Output Decisions

Chapter Outline
1. Costs in the Short-run
   a. Fixed Costs
   b. Variable Costs
   c. Total Costs
2. Output Decisions: Profit Maximization
3. Short Run Supply Curve

Costs in the Short-Run
Fixed Costs – any cost that does not depend on the firm’s level of output.
Variable Costs – costs that depend on the level of output chosen.
Total Costs – fixed costs plus variable costs.

\[ TC = TFC + TVC \]

Average Fixed Costs – a per unit measure of fixed costs.
Average Variable Costs – a per unit measure of costs that depend on the level of output chosen.
Average Total Costs – a per unit measure of all costs.

\[ AFC = \frac{TFC}{Q} \quad AVC = \frac{TVC}{Q} \quad ATC = \frac{TC}{Q} \]

ATC = AVC + AFC

Marginal Costs – the additional cost of producing one additional unit of a good or service.

\[ MC = \frac{\Delta TVC}{\Delta Q} \]

Output Decisions: Profit Maximization
Total Revenue – the amount received from the sale of the product
Marginal Revenue – the additional revenue that a firm makes from selling one additional unit of a good or service.

\[ TR = P*Q \quad MR = \frac{\Delta TR}{\Delta Q} = P^* \]

Profit Maximization level of output is MR = MC.

Short-run Supply Curve
The MC curve above the AVC.