# Unit 2
# Competitive Markets and Efficiency (Chs. 2 & 3)
# 10/21

ECON 323 – MICROECONOMIC THEORY – DR. STRICKLAND

# Introduction

We will examine:

- **Supply curves** (chapter 2)
    - Determinants of supply
    - Supply curves vs. inverse supply curves
    - Elasticity
- **Competitive market equilibrium** (chapter 2)
- **Efficiency of competitive markets** (chapter 3)

# Supply

**Supply:** the firm's decision to produce a good/service

What matters for supply?

1. Price LAW OF SUPPLY: ↑P => ↑$Q_S$ , ↓P => ↓$Q_S$
2. Costs of production
3. Producers' outside options
4. Number of producers

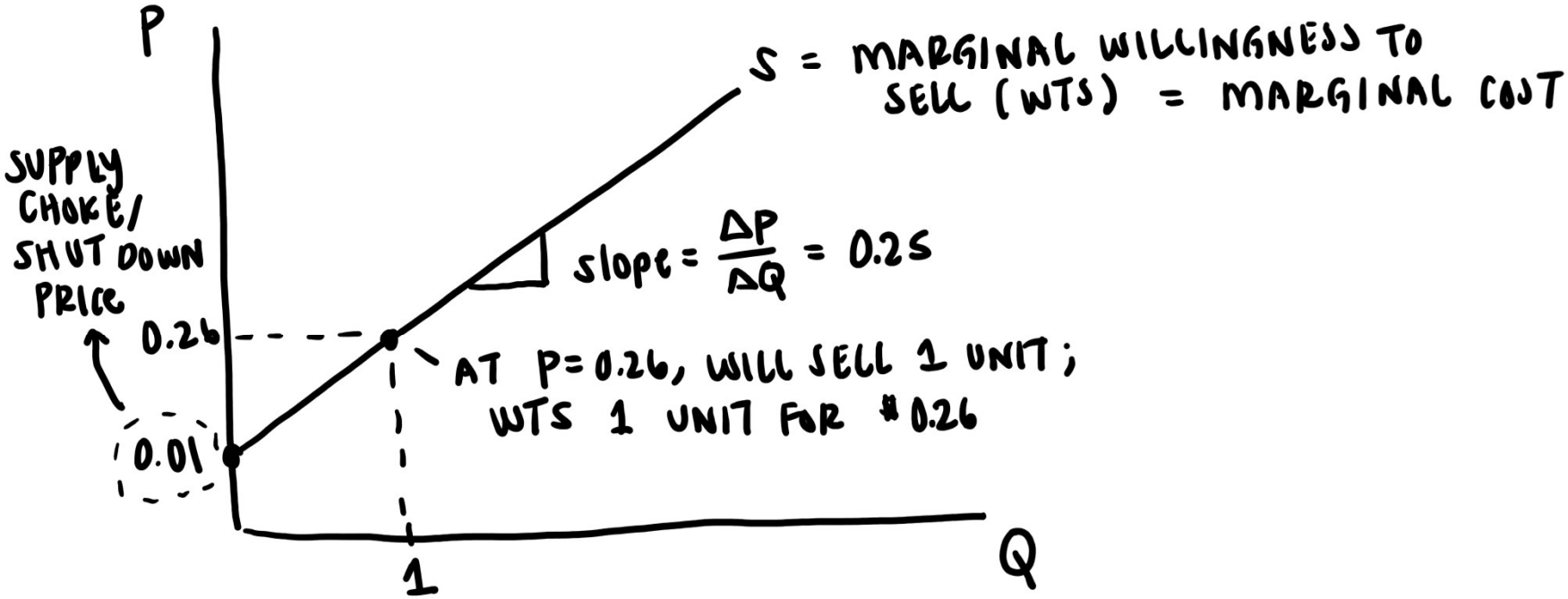
# Supply Curves

A **supply curve** isolates the effect of **price** on **quantity supplied**

- Economists plot the **inverse supply curve**

SUPPLY CURVE: $Q_S = f(P)$ e.g. $Q_S = 200P + 50$

INVERSE SUPPLY: $P = f(Q_S)$ e.g. $P = 0.01 + 0.25Q_S$ * WHAT WE GRAPH



# Price Elasticity of Supply

**Price elasticity of supply:** the percentage change in quantity supplied divided by the percentage change in price

$$\varepsilon_S = \frac{\%\Delta Q_S}{\%\Delta P} = \frac{\Delta Q_S / Q_S}{\Delta P / P} = \left| \frac{\Delta Q_S}{\Delta P} \cdot \frac{P_{\text{old}}}{Q_{S\,\text{old}}} \right|$$

$\%\Delta P$: new − old / old

* ELASTICITY BTWN 2 PRICES

$$\varepsilon_S = \left| \frac{1}{\text{SLOPE}} \cdot \frac{P}{Q_S} \right|$$

SLOPE OF INVERSE SUPPLY

* ELASTICITY AT A PRICE

# Characterizing Price Elasticity of Supply

When price elasticity of supply is high…

- **Elastic** $|\varepsilon_s| > 1$
- Infinitely high? **Perfectly elastic** $|\varepsilon_s| = \infty$

When price elasticity of supply is low…

- **Inelastic** $|\varepsilon_s| < 1$
- Zero? **Perfectly inelastic** $|\varepsilon_s| = 0$

UNIT ELASTIC: $|\varepsilon_s| = 1$