

- **Market Efficiency:**

When a market is in **equilibrium**, total surplus is **maximized**, i.e. resources are allocated most efficiently.

- **When Not in Equilibrium:**

Some potential surplus is **lost**, creating what we call **deadweight loss**.

- **Components of Surplus:**

1. **Consumer Surplus (CS):** Value buyers receive above what they pay.
2. **Producer Surplus (PS):** Value suppliers receive above their cost of production.
3. **Total Surplus:** The sum of CS and PS.
4. **Deadweight Loss:** The loss of total surplus when a market is distorted

- **Math:**

- Areas (rectangles and mostly **triangles**) to measure surpluses.

$$\frac{1}{2} \text{Base} \cdot \text{Width}$$