# Chapter 5: Government Intervention The Cost of Interfering with Market Forces

# A. Price Ceiling

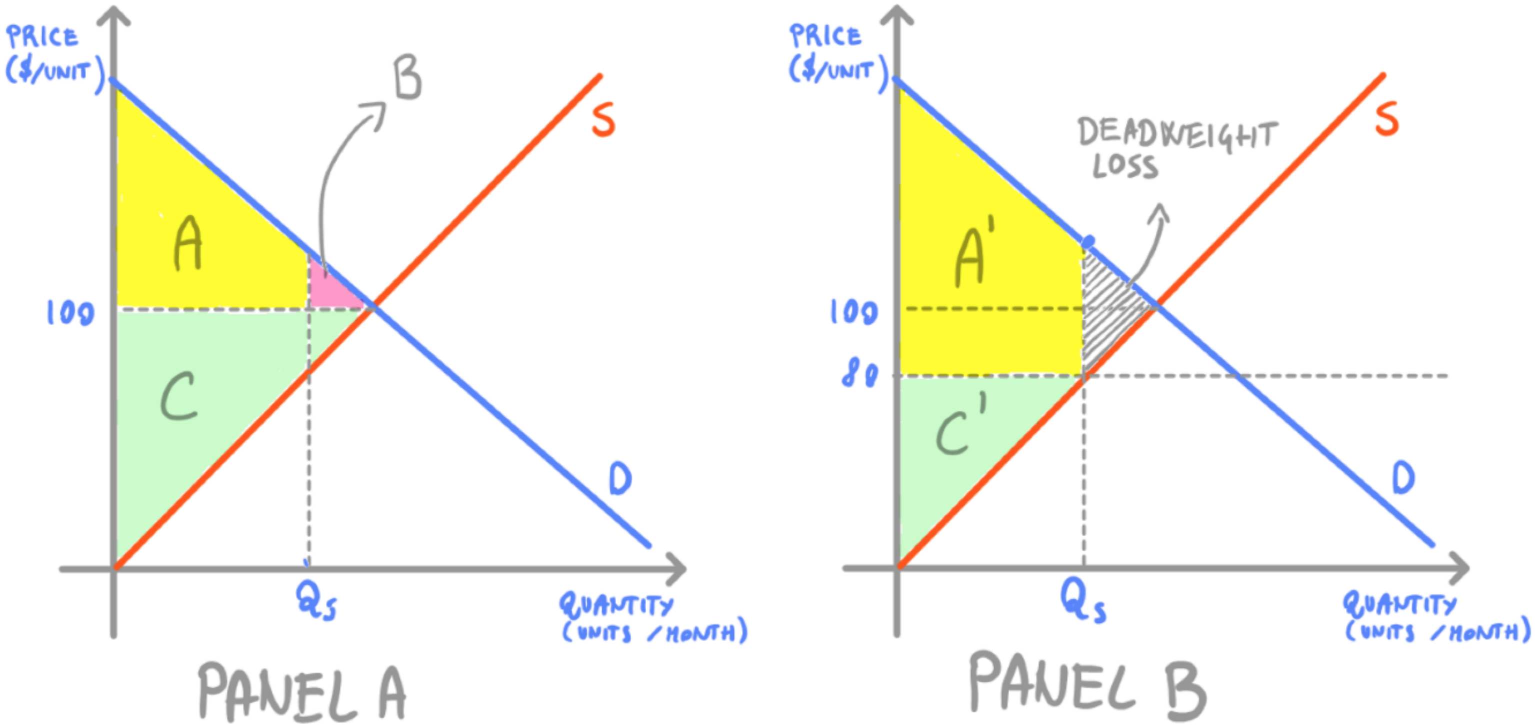
**Definition:**

The **Price Ceiling** represents a maximum allowable price imposed by the government.

when Gov. believes that P is unfairly high
(to protect low-income consumers)

# A. Price Ceiling

Say $P_{market}$ = \$100 and $P_{ceiling}$ = \$80




**If $P_{market}$ < $P_{ceiling}$ → policy has no effect !!**

# A. Price Ceiling

**Definition:**

The **Deadweight Loss** is the *loss in economic surplus* due to the market being prevented from reaching the equilibrium price and quantity where marginal benefit (MB) equals marginal cost (MC).

# A. Price Ceiling

- The **'winners'** of this policy are the consumers with high reservation price (i.e., high willingness to pay) → **the rich**!!

- **Solution**: If the government wanted to help the low-income households, a **direct lump sum transfer to the poor** is more efficient.

# B. Price Floor

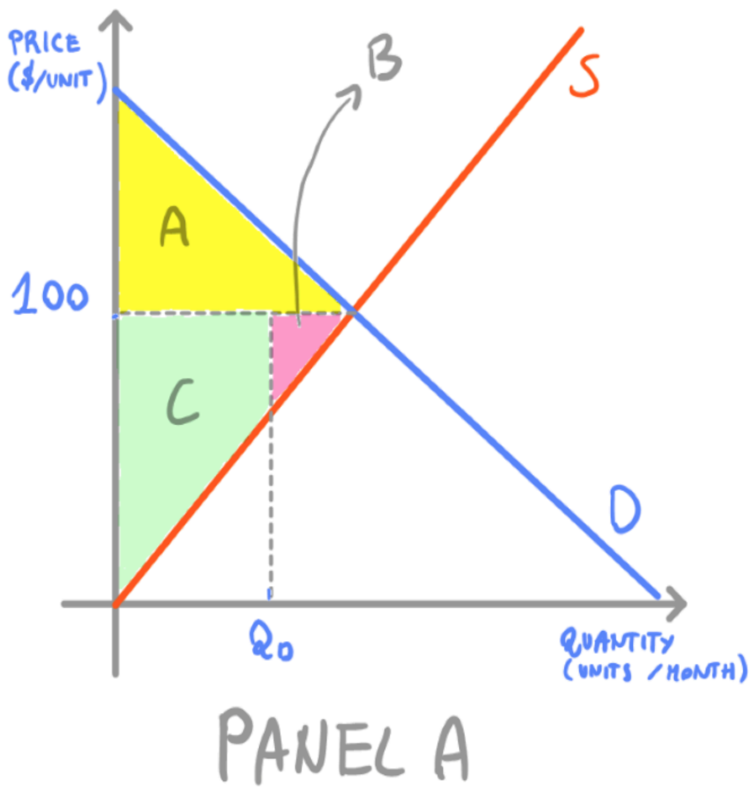
**Definition:**

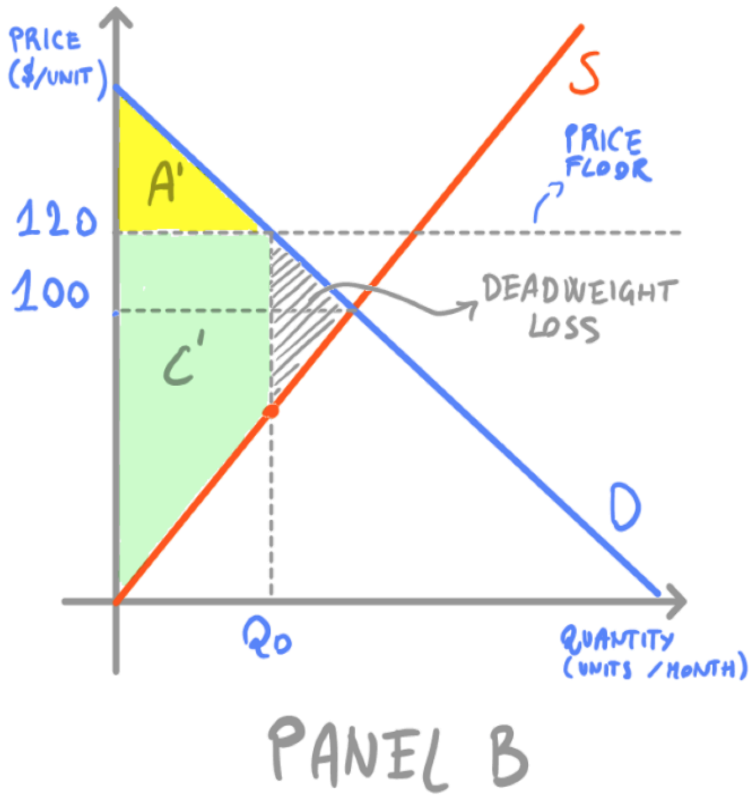
The **Price Floor** represents a minimum allowable price imposed by the government.

when Gov. believes that P is unfairly low
(to protect producers in a certain sector)

# B. Price Floor

Say $P_{market}$ = \$100 and $P_{floor}$ = \$120




**If $P_{market}$ > $P_{floor}$ → policy has no effect !!**

# B. Price Floor

- The **'losers'** of this policy are all those harmed by the price floor → **consumers & producers**!!
- **Solution**: The 'losers' would be willing to pay the 'winners' the exact amount they gained from the intervention in exchange for cancelling the price floor → **Pareto Improving Transaction!**

# C. Taxation

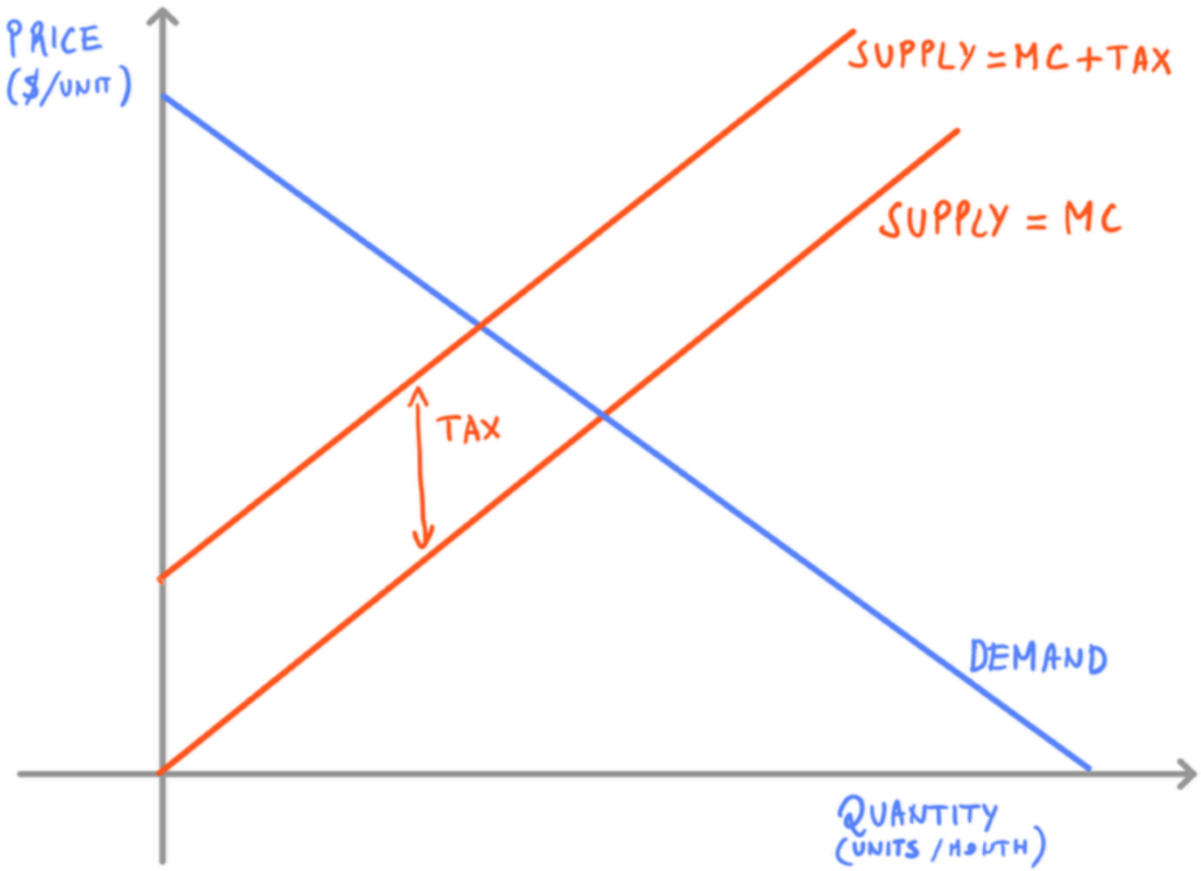
→Unlike the price ceiling and the price floor, a tax **generates tax revenues**

→Tax revenues can be used to **redistribute wealth** within a society

improves the distribution of Income & Opportunities across different population groups

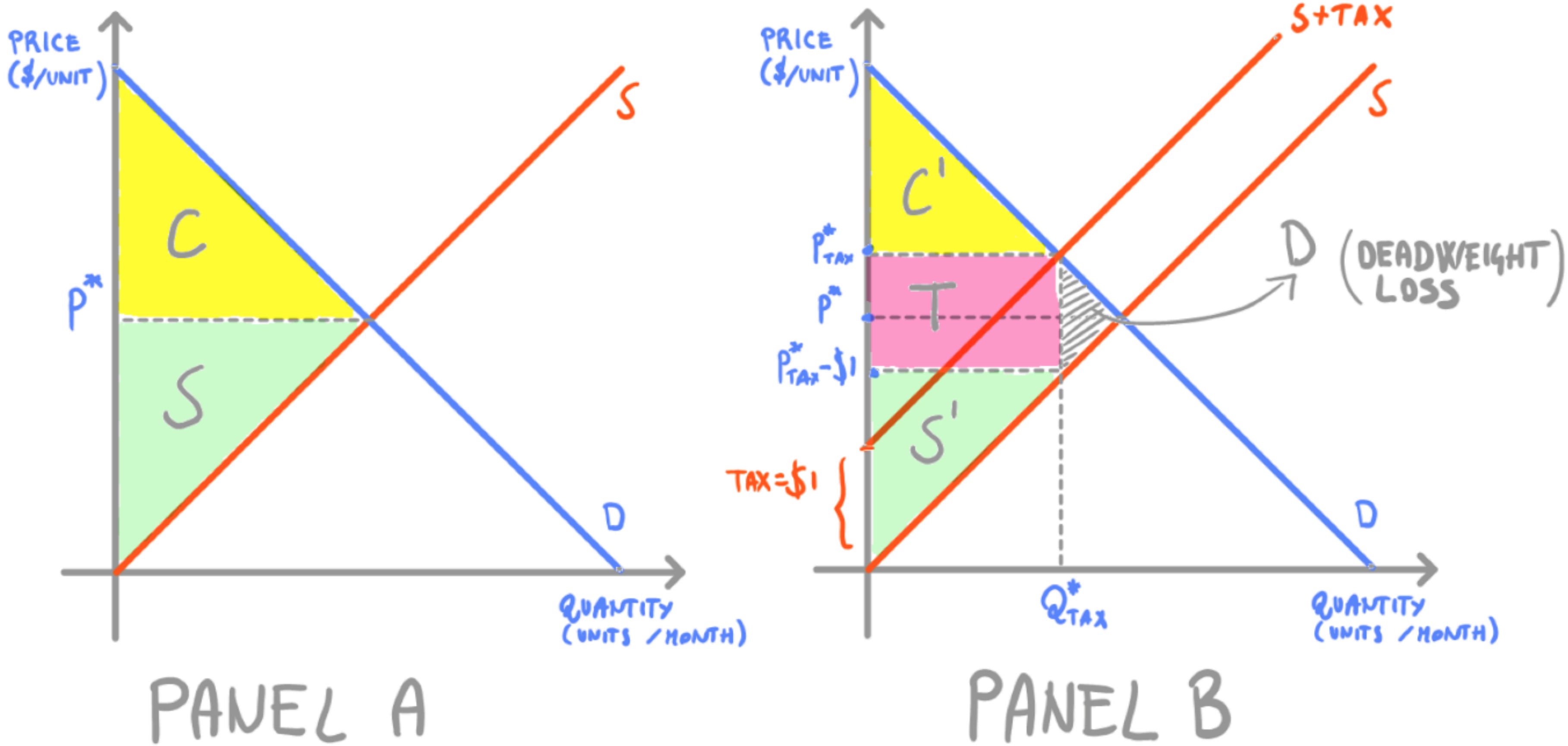
# C. Taxation

Say we <u>tax producers</u>



# C. Taxation

Say we <u>tax producers</u> (Who bears the tax burden?)



# C. Taxation

- The **‘losers’** of this policy are
  - the **consumers & producers** (P↑, Q ↓) or
  - the **consumers** (if D = inelastic OR S = perfectly elastic)
  - the **producers** (if S = inelastic OR D = perfectly elastic)

- The ‘**winner**’ is the **Government** → gets tax revenue

- **Solution**: The ‘losers’ would be willing to pay the ‘winner’ the exact amount it gained from the intervention in exchange for cancelling the tax → **Pareto Improving Transaction!**

# C. Taxation

The **'winner'** is **Gov.** → use tax revenue to

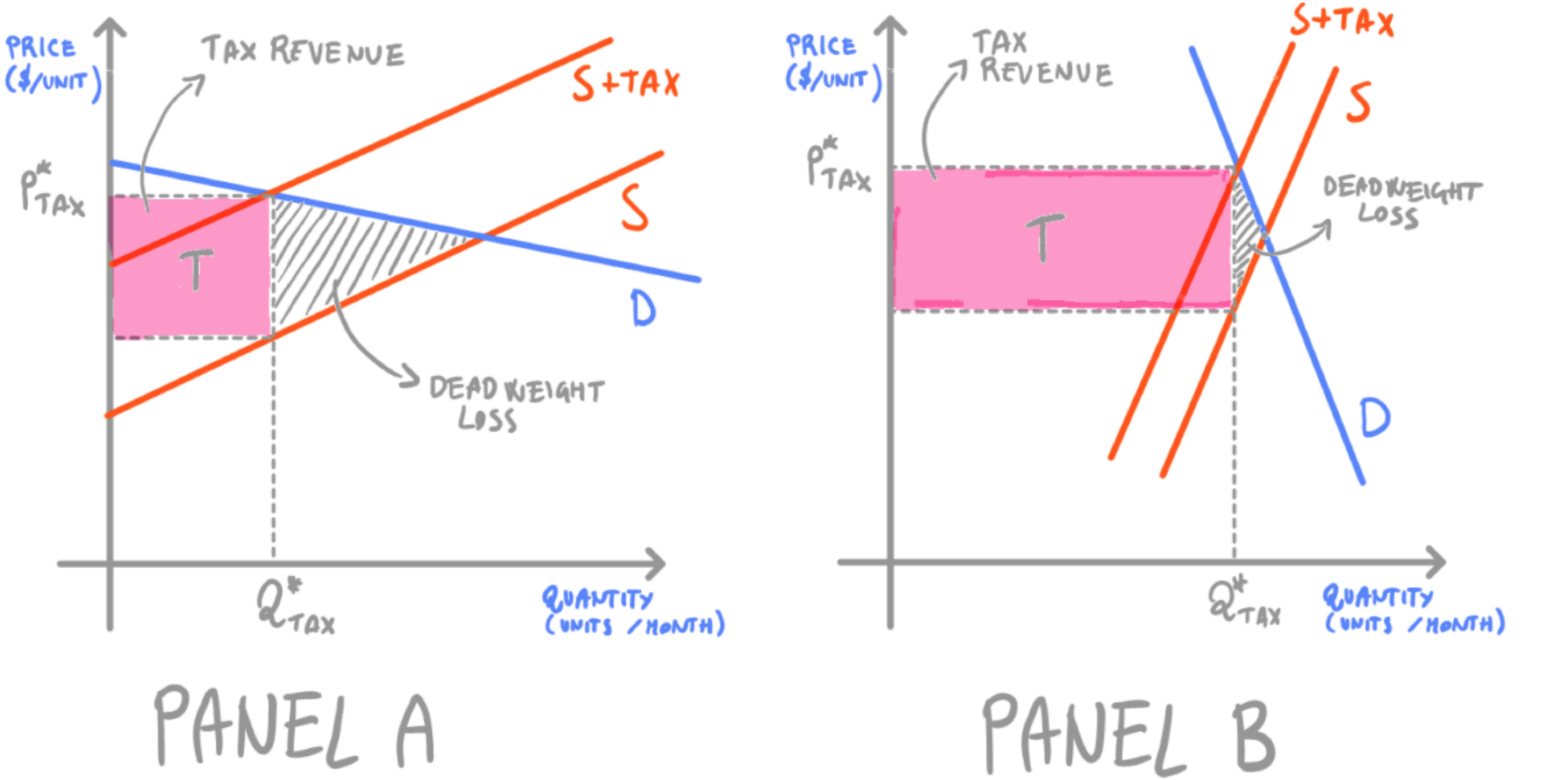
- subsidize or reduce taxes on other markets
- provide **public goods**, etc.

**What is the most efficient way of collecting tax revenues?**

**Tax those with the lowest elasticity!!**

**Why?** The more elastic supply & demand are at the initial P*, the bigger the deadweight loss!

# C. Taxation




**If Gov. needs to impose a $1 tax, the most effective way of doing it is to apply it to the least "elastic" market!**

# D. Subsidy

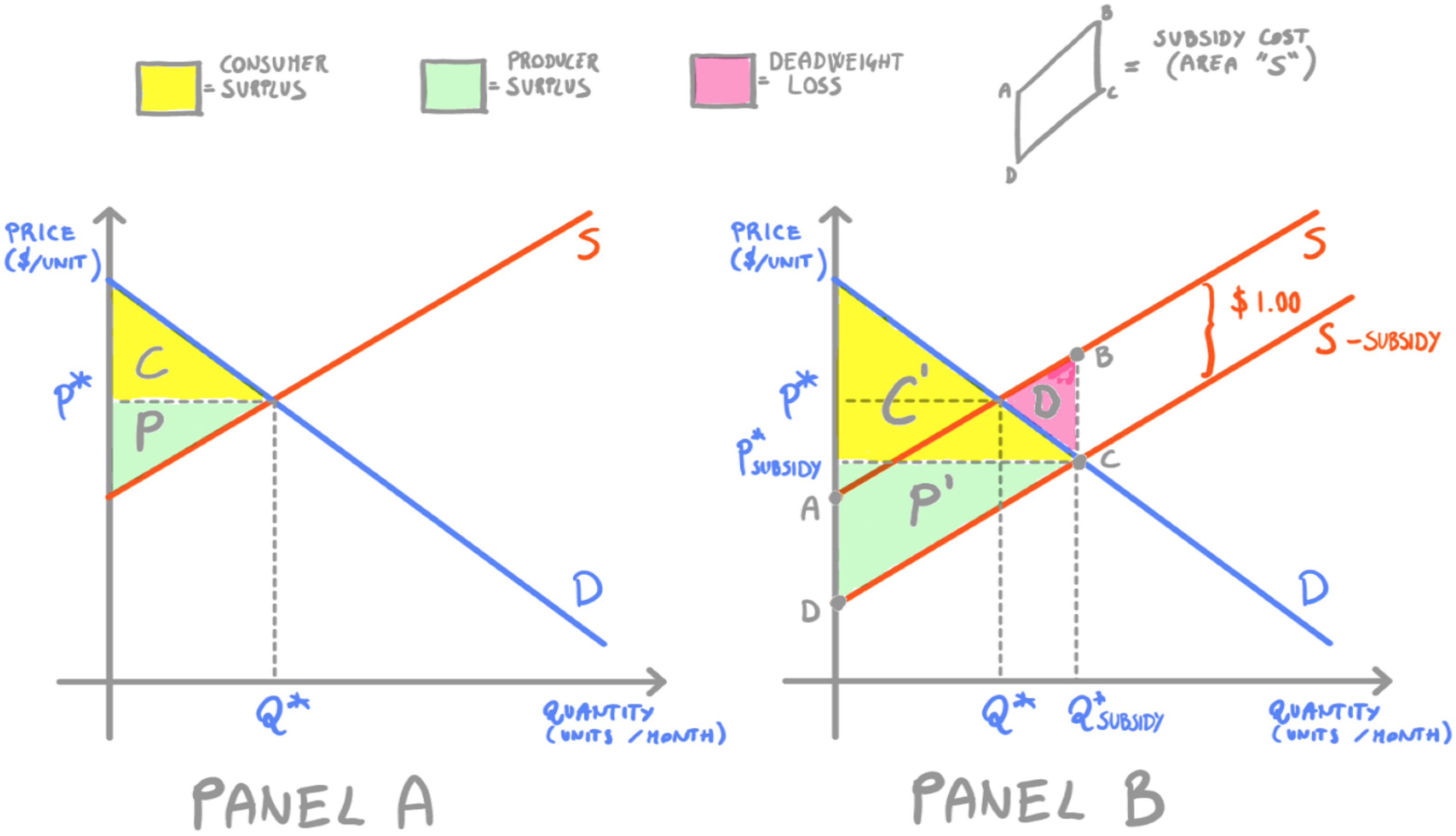
→ Opposite of a tax

→ Government **Cost** to assist certain groups of consumers (or producers)

makes certain goods more affordable for certain groups of consumers

# D. Subsidy

Say we <u>subsidize producers</u>



# D. Subsidy

- The **'winners'** of this policy are the consumers and producers, but it costs more to the Government then it benefits the people.
- **Solution**: If the government wanted to make certain goods more affordable, a **direct lump sum transfer to the poor** is more efficient.

# Summary: Government Intervention

**Perfectly competitive markets** converge to an equilibrium where **total surplus is maximized**

→ Any **Gov. intervention** that prevents a market from reaching its P* is **bad for total surplus**

→ **AVOID** Gov. intervention at all cost!

**<u>Sometimes this is not true: Public Goods!</u>**