EE211
PRINCIPLES OF MICROECONOMICS

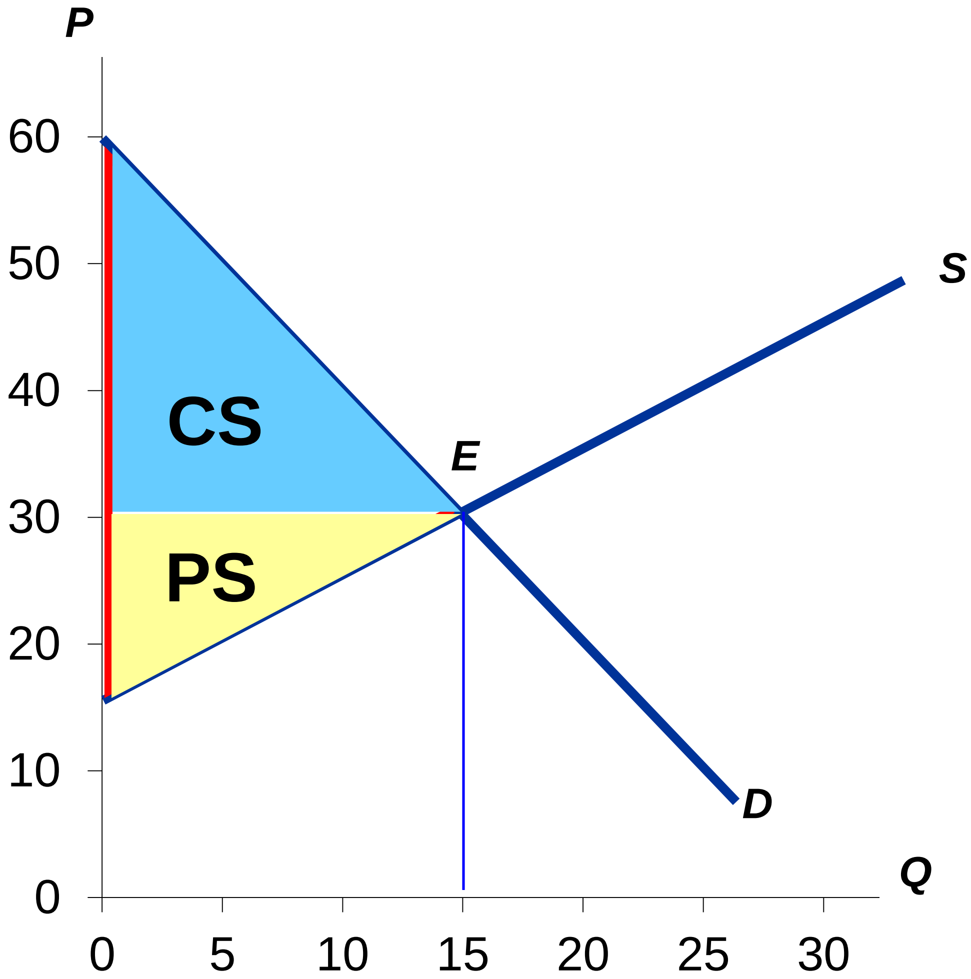
Topic 5:

Applications on Demand, Supply, and Government Policies

Topics

- Price floors (Minimum Price)
- Price ceilings (Maximum Price)
- Tax/subsidy

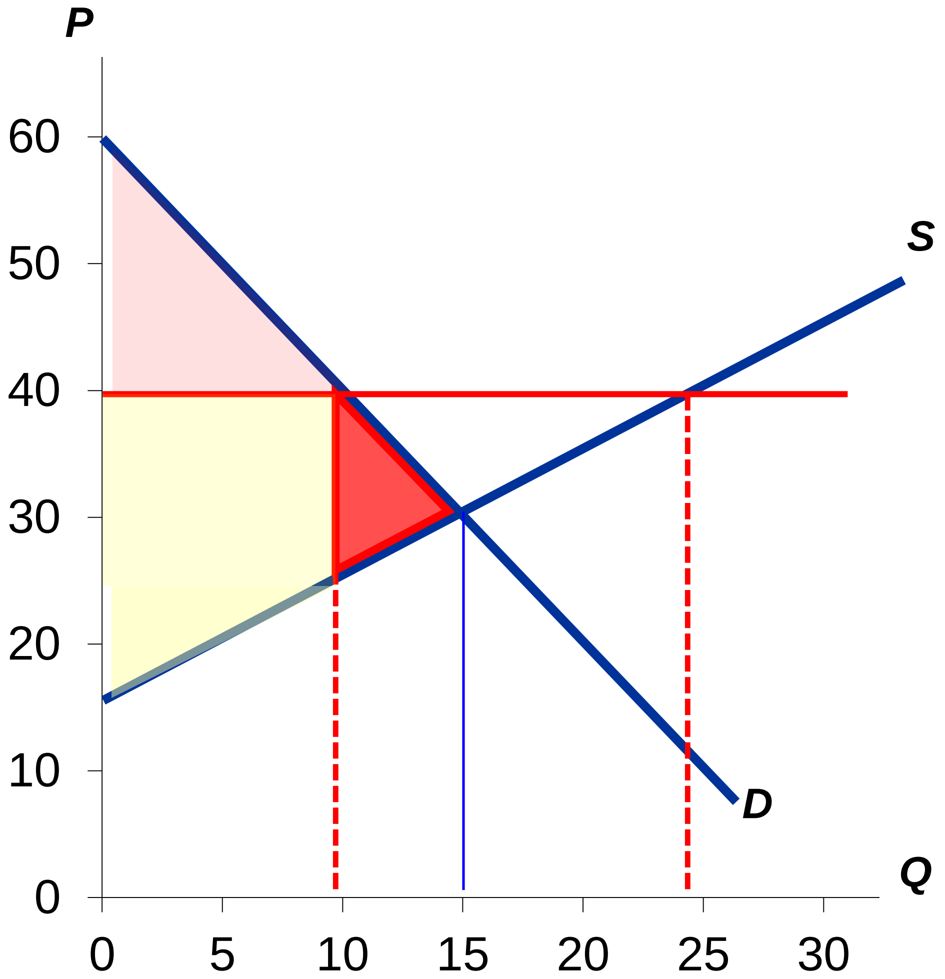
Market Equilibrium



- Recall:

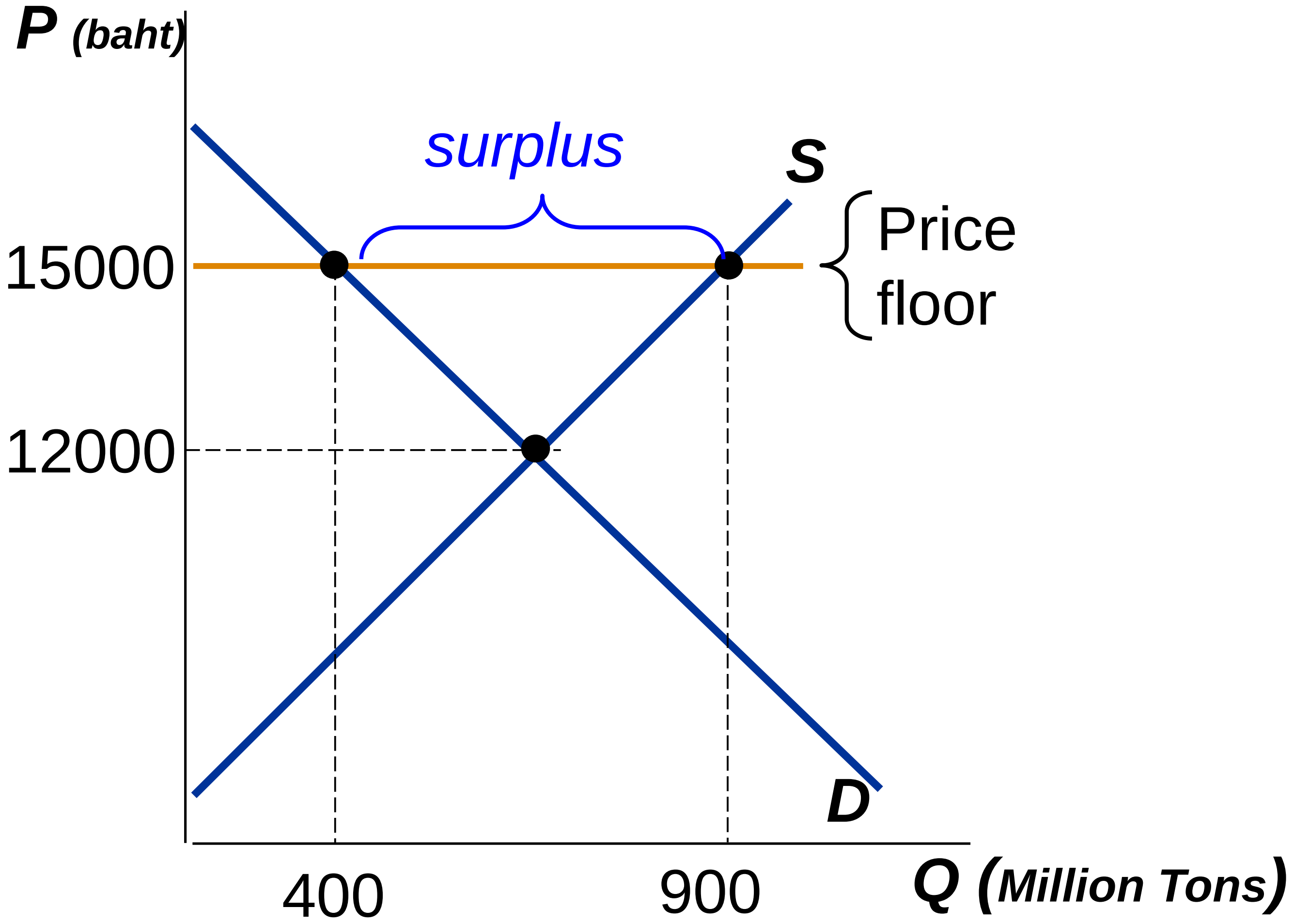
Total surplus (or social welfare) is maximized at the market equilibrium.

Price Floors (Minimum Price)

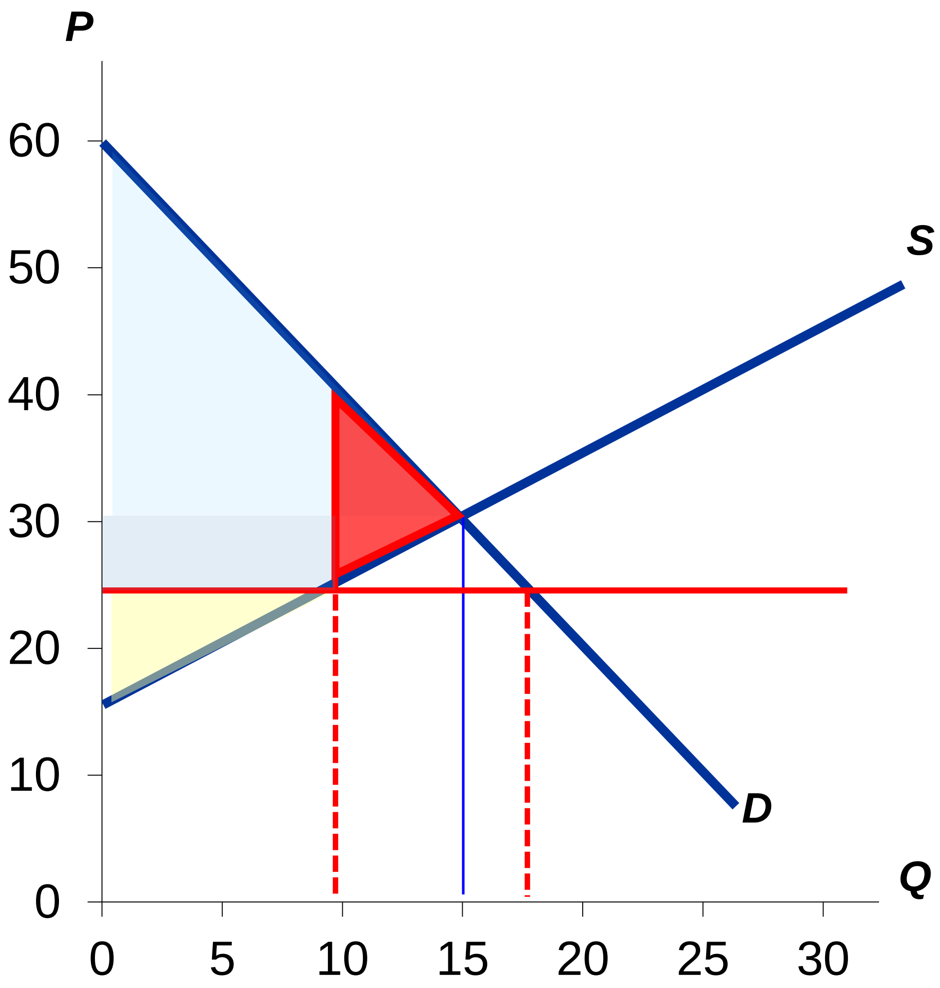


- **Price floor**: a legal minimum on the price of a good or service.
- *Example*: minimum wage
- Question: Can the government set the price floor below the equilibrium price?

Example: Agriculture Price Guarantee Scheme

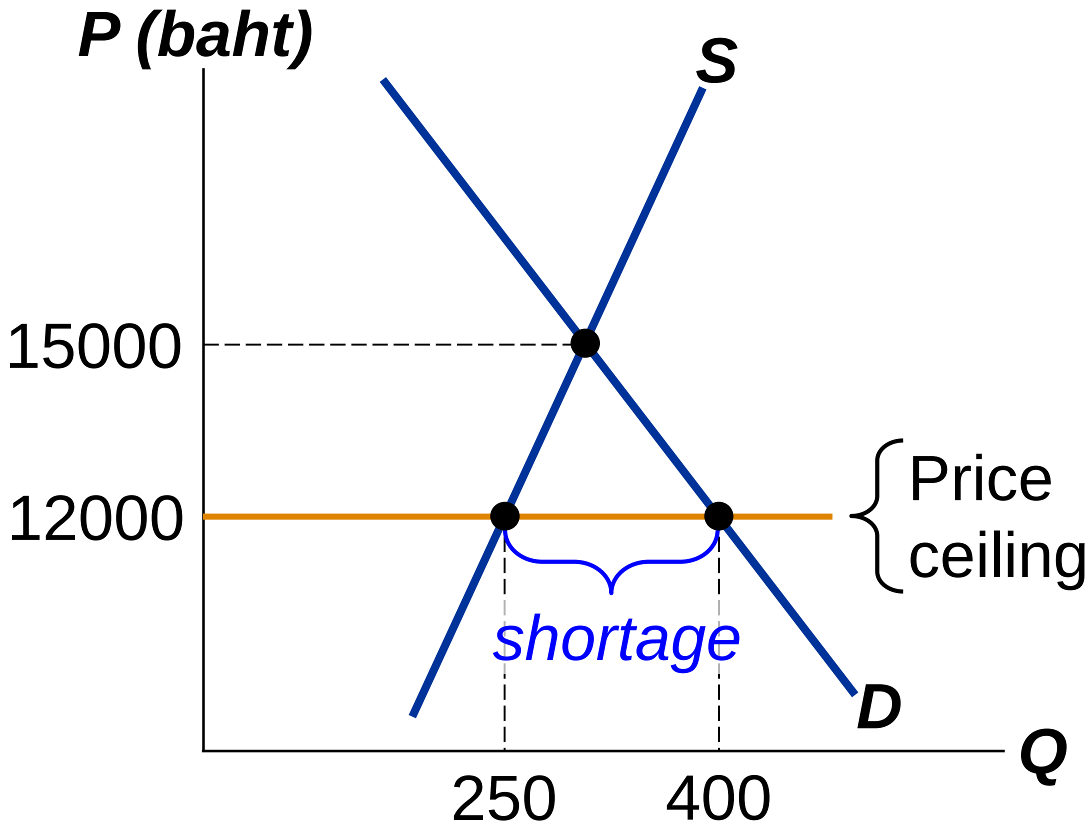


Price Ceilings (Maximum Price)



- **Price ceiling**: a legal maximum on the price of a good or service.
- *Example: rent control*
- Can the government set the price ceiling above the equilibrium price?

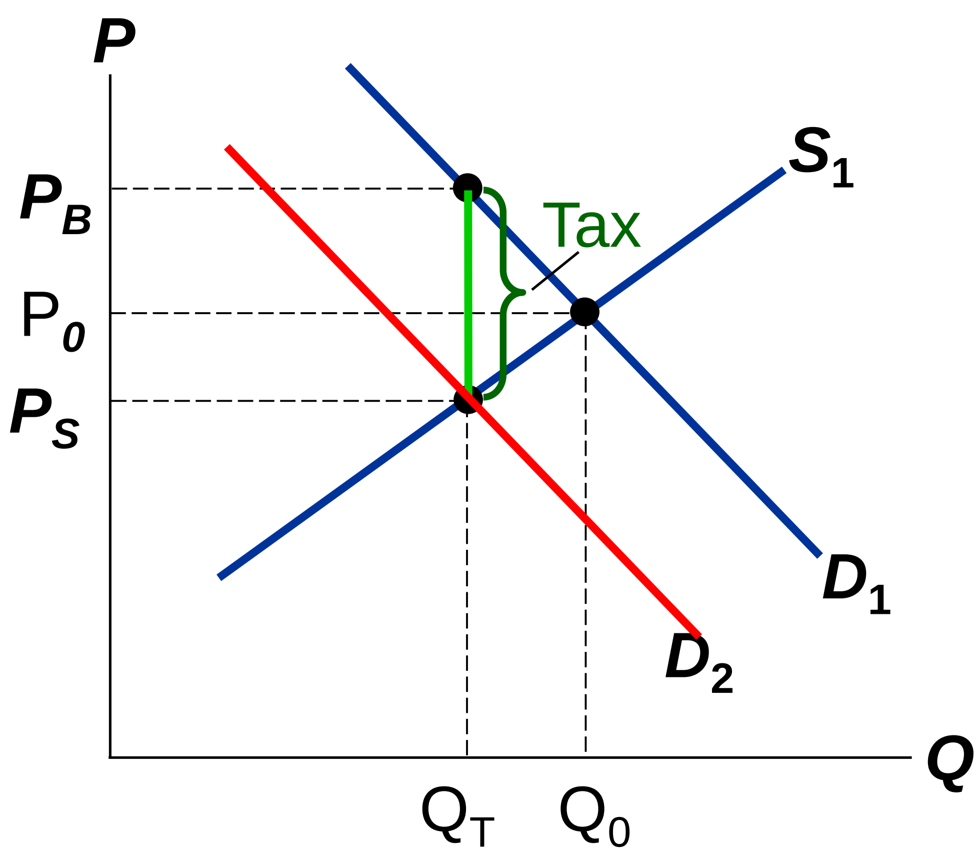
Example: The Market for Apartments



Taxes

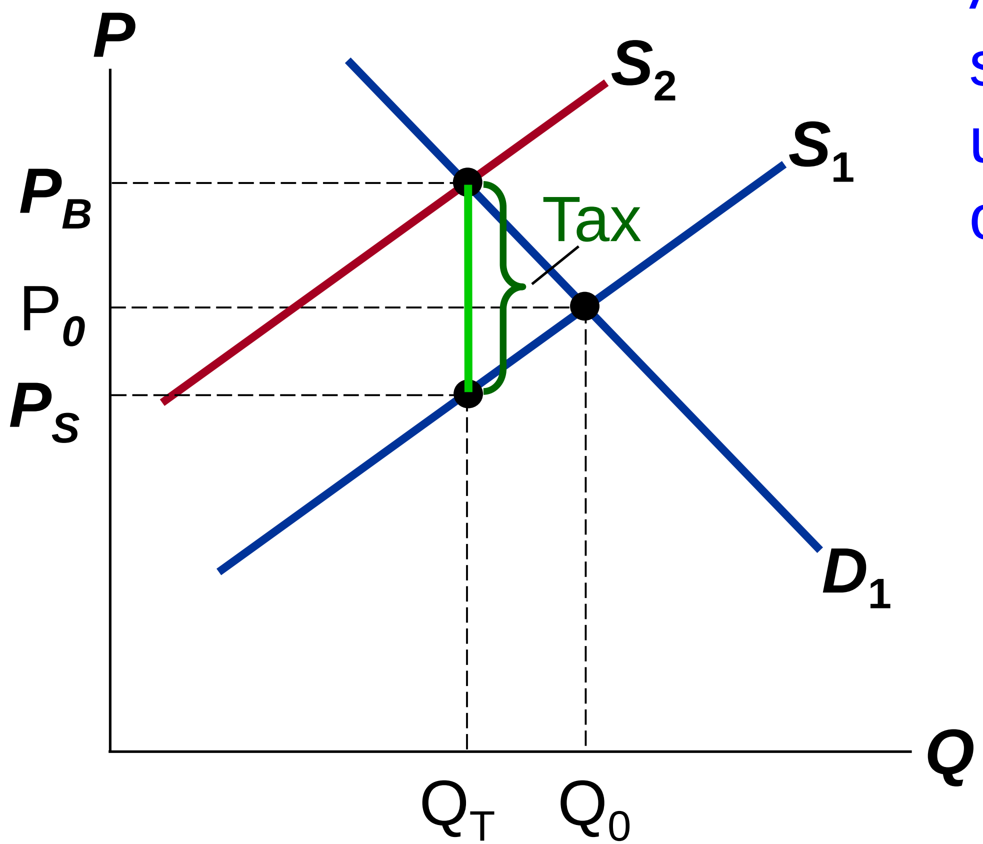
- In this class, we talk about excise taxes – taxes charged on the purchase of goods and services.
  - **Per-unit (or specific) tax**: a specific amount for each unit sold.
  - Ad-valorem tax: a percentage of the good's price
- The government can impose taxes on either buyers or sellers. We will show that:
  - ➢the outcome (effect on P&Q) is the same in both cases;
  - ➢tax burdens on buyers and on sellers are determined by relative price elasticities.

Tax on Consumers



A tax on buyers shifts the ***D*** curve down by the amount of the tax.

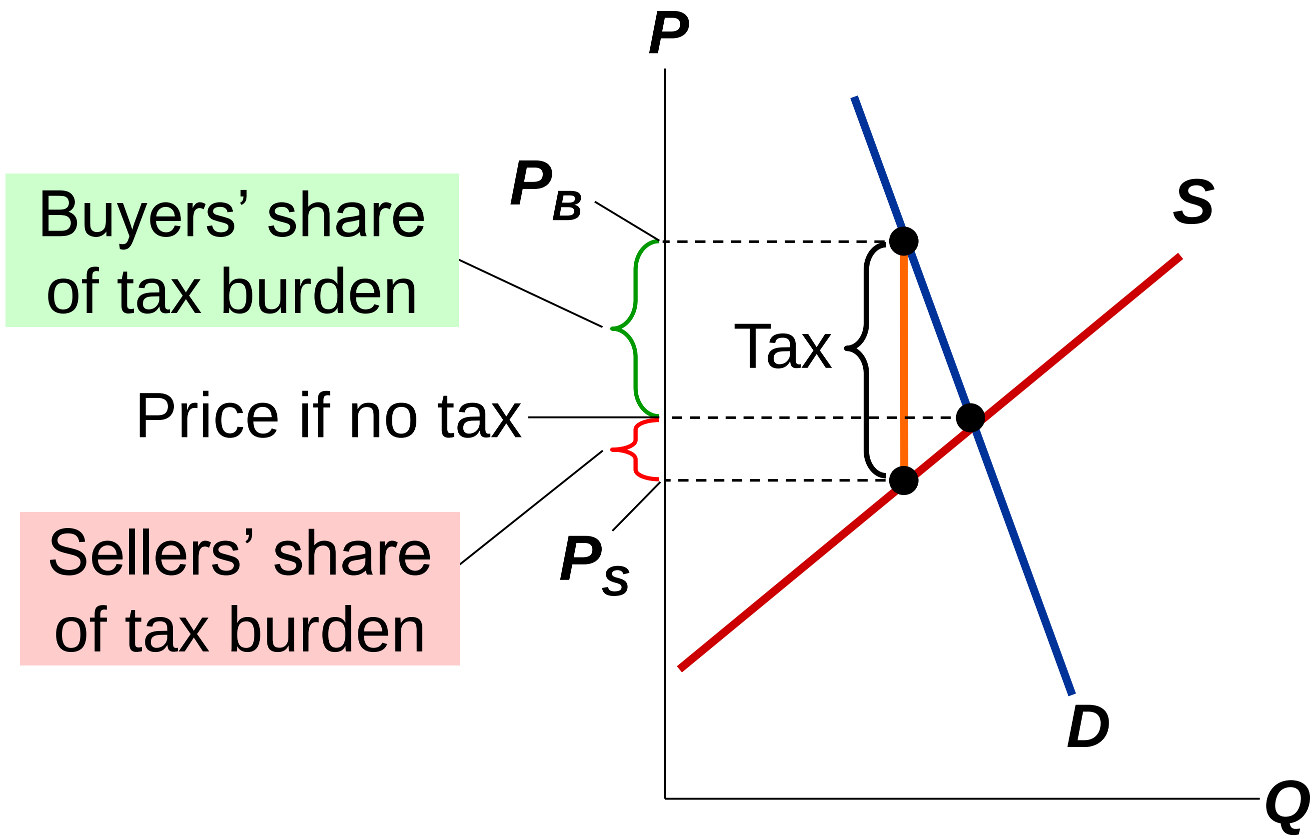
Tax on Producers



A tax on sellers shifts the ***S*** curve up by the amount of the tax.

Tax Incidence and Elasticity:

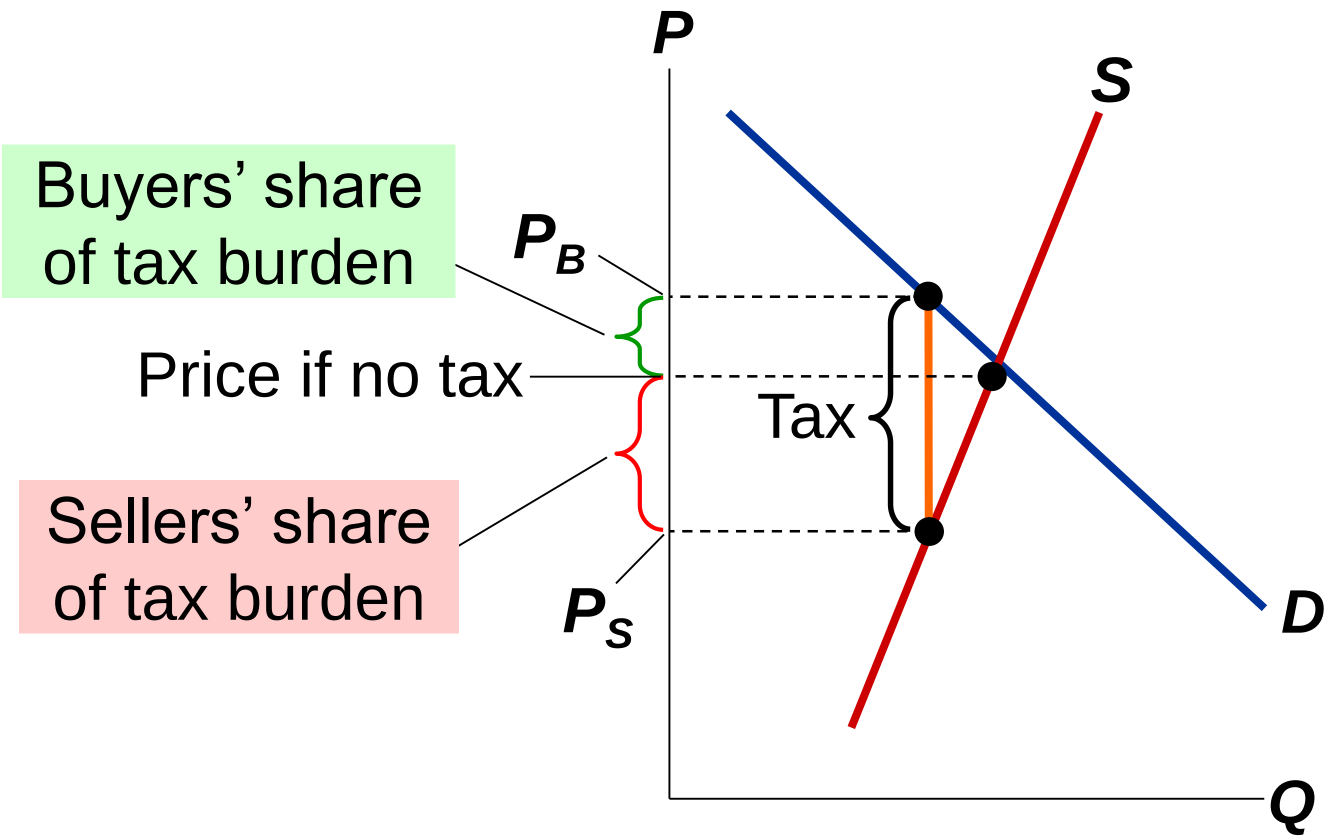
Case 1: Supply is more elastic than demand.



Numerical Example

- Let $P = 50 – 0.2Q_d$ and $P = 20 + 0.1Q_s$. Suppose a $6 per-unit tax is imposed on producers. Determine the equilibrium after tax.

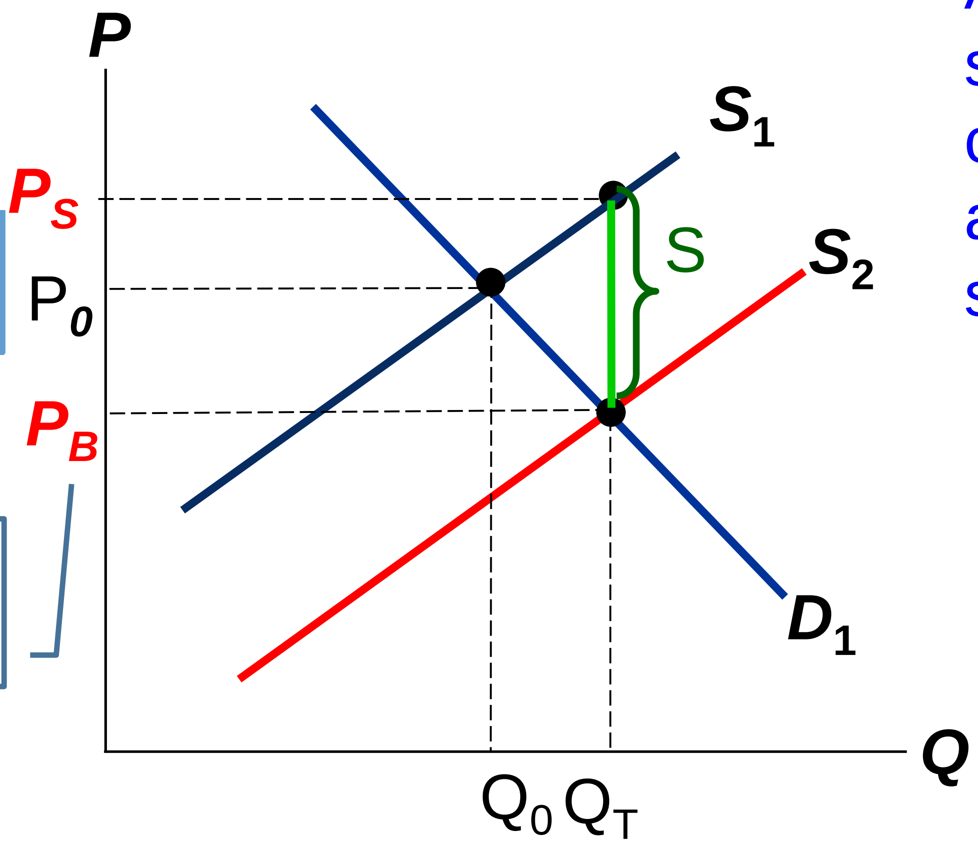
Tax Incidence and Elasticity:
Case 2: Demand is more elastic than supply.



Numerical Example

- Continue with the example on slide #12,
  - Calculate the point elasticities of demand and supply at the before-tax equilibrium.
  - Calculate the tax burden for both consumer and producer.

Subsidy (on Producers)



Corrections!
$P_S - P_B = S$

A subsidy on sellers shifts the ***S*** curve down by the amount of the subsidy.

Question: Is there any welfare loss from a subsidy?