Market Interference
Marginal Benefit
The additional benefit to a consumer from consuming one more unit of a good or service. Highest price willing to pay.

Consumer Surplus
The difference between the highest price a consumer is willing to pay for a good or service and the price the consumer actually pays. The Consumer’s Net Benefits.

Demand Curve
Synonymous with Marginal Benefits Curve (Law of Demand & Law of Diminishing Marginal Benefits)
**Marginal Cost**
The additional cost of producing a good or service. Lowest price willing to accept (Reserve).

**Producer Surplus**
The difference between the lowest price a firm would be willing to accept (Reserve) and the price it actually receives.

**Producer’s Net Benefits.**

**Supply Curve**
Synonymous with Marginal Costs Curve (Law of Supply & Law of Increasing Marginal Costs)
Marginal Benefit = Marginal Cost at Market Equilibrium
Marginal Benefit ≠ Marginal Cost at Market Disequilibrium

Allocatively Efficient Market
Producer and Consumer Surplus are at their maximum.
Price Controls

**Price Floor**
A government-mandated minimum price below which legal trades cannot be made.

**Price Ceiling**
A government-mandated maximum price above which legal trades cannot be made.

**Binding vs. Non-Binding**
Binding Price Floors

Widget demand and supply graph:
- The x-axis represents Thousands of Widgets.
- The y-axis represents Price.
- The price floor is denoted by the red dashed line at 0.18.
- The free market price is at the intersection of the demand and supply curves.
- Points A, B, C, D, E, and F are marked on the graph.

 Thousands of Widgets

Widgets

Price

Free Market Price

Price Floor
**Agricultural Markets**

**Intended Effect:**
- Prices go up to help farmers.

**Unintended Effects:**
- Surplus of product.
- Non-price rationing
  - Farmer discounts items not under price control.
  - Government buys surplus:
    - Store it.
    - Destroy it.
    - Redistribute it.

**Graphical Representation:**
- **Price (dollars per bushel):**
  - $3.50
  - $3.00
- **Quantity (billions of bushels per year):**
  - 0
  - 1.8
  - 2.0
  - 2.2

**The Economic Effects**

"Good intentions do not always create good results"
Binding Price Floors
Labor Markets

The Economic Effects

**Intended Effect:**
- Wages go up to help low wage workers.

**Unintended Effects:**
- Surplus of labor. (i.e. Unemployment)
- Non-price rationing:
  - Decrease in non-wage compensation.
  - Reduced work hours.
  - Higher product prices.

“Good intentions do not always create good results”
Binding Price Ceilings

The diagram illustrates the impact of binding price ceilings on the market for Widgets. The graph shows the relationship between price (Price) and quantity (Thousands of Widgets). The free market price is represented by the intersection of the demand and supply curves. The price ceiling, set below the free market price, limits the price that can be charged, leading to changes in the quantity supplied and demanded. Points A, B, C, D, E, and F illustrate different scenarios under the price ceiling, showing how prices and quantities are affected compared to the free market equilibrium.
Price Ceilings

Apartment s

The Economic Effects

**Intended Effect:**
- Prices go down helping poor renters.

**Unintended Effects:**
- Shortage of product.
- Non-price rationing:
  - Racial & gender discrimination.
  - Reduced maintenance.
  - Future supply of product decreases.

“Good intentions do not always create good results”
Sources of black markets; trading legitimate for illegitimate markets:

- Evasion of a price control.
- Evasion of prohibition.
Calculating Consumer Surplus and Producer Surplus

**Triangle Area**
\[= \frac{1}{2} \text{ (base)} \text{(height)}\]

**Rectangular Area**
\[= \text{ (base)} \text{(height)}\]

**CS** = \(\frac{1}{2}(1.5)(\$3000 - \$1500)\)
\[= \$1125 \text{ million}\]

**PS** = \(\frac{1}{2}(1.5)(\$1500 - \$346)\)
\[= \$865.5 \text{ million}\]
Application

Based on the market represented, complete the table below.

<table>
<thead>
<tr>
<th>CONSUMER SURPLUS</th>
<th>PRODUCER SURPLUS</th>
<th>DEADWEIGHT LOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPETITIVE EQUILIBRIUM</td>
<td>RENT CONTROL</td>
<td>COMPETITIVE EQUILIBRIUM</td>
</tr>
</tbody>
</table>

The diagram shows the relationship between rent, quantity, and surplus. The areas labeled A, B, C, and D represent different components of consumer and producer surplus and deadweight loss.
**Excise Taxes**

**Tax Rate**
- Per-unit tax.

**Tax Base:**
- Quantity good taxed.

**Tax Revenue**
- Tax Rate x Tax Base

**Excess Burden**
- Deadweight loss due to taxation
- Varies based on “Elasticity”

**Tax Incidence:**
- Who bears the burden of the tax.
  - Statutory
  - Actual

---

The effect of a $1 per unit Excise Tax on cigarette sellers

- $1.00-per-pack federal tax on cigarettes shifts the supply curve up by $1.00.

- Price the consumer pays after the $1.00-per-pack tax is imposed

- Price received by producers after paying the tax

- Deadweight loss or excess burden from tax
Excise Taxes

The effect of a $0.10 per unit Excise Tax on gasoline sellers

Tax Rate?
Tax Base?
Tax Revenue?
Excess Burden?
Tax Incidence?
- Statutory
- Actual
Excise Taxes

- Tax Rate?
- Tax Base?
- Tax Revenue?
- Excess Burden?
- Tax Incidence?
  - Statutory
  - Actual

The effect of a $0.10 per unit Excise Tax on gasoline buyers
The Impact of a Subsidy

- $20 textbook subsidy given to students.
- Demand shifts up by $20.
- Market price rises from $80 to $90.
- Sellers receive gross price of $90.
- Buyers pay net price of $70.
- Sellers gain by $10 & Buyers gain by $10.

$20 subsidy

$20 textbook subsidy given to students.
Demand shifts up by $20.
Market price rises from $80 to $90.
Sellers receive gross price of $90.
Buyers pay net price of $70.
Sellers gain by $10 & Buyers gain by $10.
Quantitative Demand and Supply Analysis

Suppose that the demand & supply for apartments in New York City is:

\[ Q^D = 3,000,000 - 1,000P \]
\[ Q^S = -450,000 + 1,300P \]

Find the following:
- x and y intercepts
- Equilibrium quantity and price
- Consumer & Producer Surplus
Evaluating Market Interference

Positive Analysis

• Some people win.
• Some people lose.
• There is a loss of economic efficiency.

Normative Analysis

• Do the gains to the winners make up for the losses to the losers & the economic inefficiency?
• Matter of judgment and not adequately answered by economic science.