

ECNS 432

Ch. 3

# Ch. 3: Micro Foundations of CBA

- Micro theory provides the basic technical foundations for CBA
- For simplicity, we assume perfect competition for awhile (at least through this chapter)
- **Demand side:**
  - **Q.** On the demand-side, what is our measure of welfare?
  - **Ans.** Consumer surplus...one of the basic concepts in CBA
  - Under most circumstances, changes in CS can be used as a reasonable measure of the benefits to consumers of a policy change.
  - **Q.** From a social perspective, what is CS? (i.e. define it)...graphically?
  - **Ans.**  $CS = \text{Total benefits (area under demand curve)} - \text{Total expenditures}$

**Showing CS and TB graphically:**

<https://montana.techsmithrelay.com/P5mM>

# Micro Foundations of CBA

- **Taxes** are important in CBA b/c governments have to finance their projects

Tax example: <https://montana.techsmithrelay.com/XPFs>

Tax example (part 2):

<https://montana.techsmithrelay.com/IFrW>

# Micro Foundations of CBA

- Supply side

[see textbook chapter...very straightforward]

- Social Surplus

- In CBA, we often care about the market as a whole
- In the absence of impacts on government, the sum of CS and PS is called social surplus (SS) (aka Total Surplus)
- Q. When is it possible for government to enhance social surplus?
- Ans. Only in presence of mkt. failure

# Micro Foundations of CBA

- \*Allocative efficiency can only be obtained when the price paid by consumers for a good equals the marginal social cost of producing the good
  - This important result can be used to formulate efficient pricing policies
- Government Surplus and Allocative Efficiency
  - We can also think of social surplus (SS) as including government surplus
    - $\Delta SS = \Delta CS + \Delta PS + \Delta GS$
    - Ex. Often, government incurs majority of the costs of a project and enjoys none of the benefits. For example, building of rent-free housing

Target pricing welfare analysis: <https://montana.techsmithrelay.com/B509>

Target pricing (part 2): <https://montana.techsmithrelay.com/suWX>

# Micro Foundations of CBA

- Economists refer to the DWL that results from a tax as excess tax burden
  - The  $\Delta$ DWL resulting from raising an additional dollar of tax revenue is called the marginal excess tax burden (METB)

[wrap up ch.3 by working problems #1 and #2]