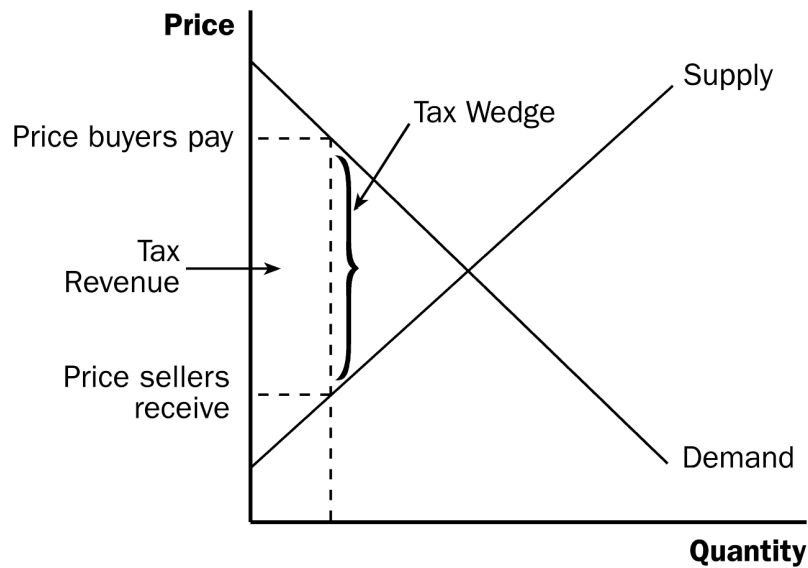


Chapter 8: Application: The Costs of Taxation

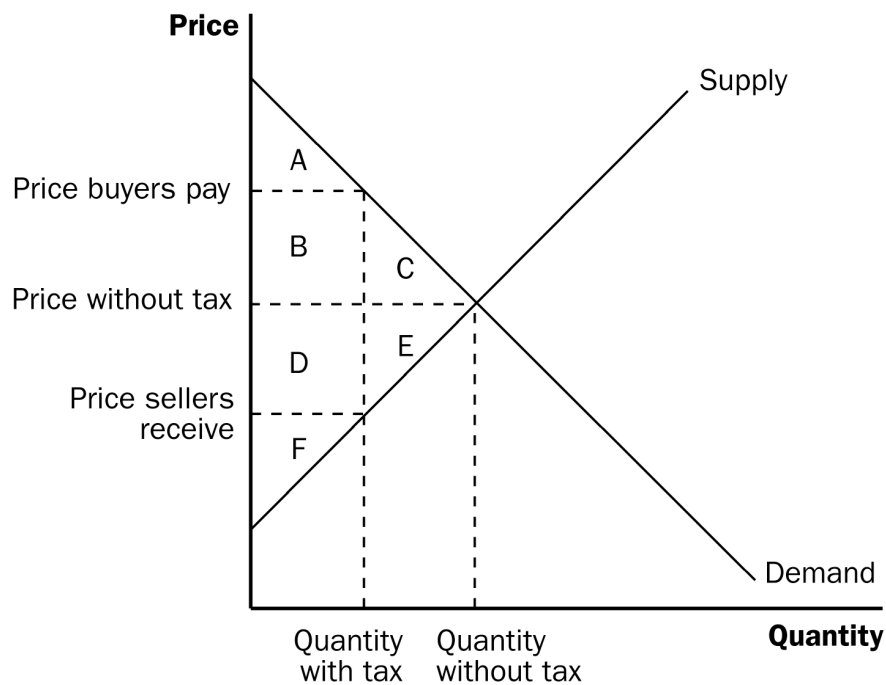
- How does a tax affect consumer surplus, producer surplus, and total surplus?
- What is the deadweight loss of a tax?
- What factors determine the size of this deadweight loss?
- How does tax revenue depend on the size of the tax?

Review from Ch. 6



The Effects of a Tax

We apply welfare economics to measure the gains and losses from a tax.



What happens to the economic well being of consumers and producers?

There is a third party that is affected by the tax: _____, which gets total tax revenue of _____. If the tax revenue is used to provide goods and services to the public, then the benefit from the tax revenue must not be ignored.

Welfare without a Tax

- a. Consumer surplus is equal to:
- b. Producer surplus is equal to:
- c. Total surplus is equal to:

Welfare with a Tax

- a. Consumer surplus is equal to:
- b. Producer surplus is equal to:
- c. Tax revenue is equal to:
- d. Total surplus is equal to:

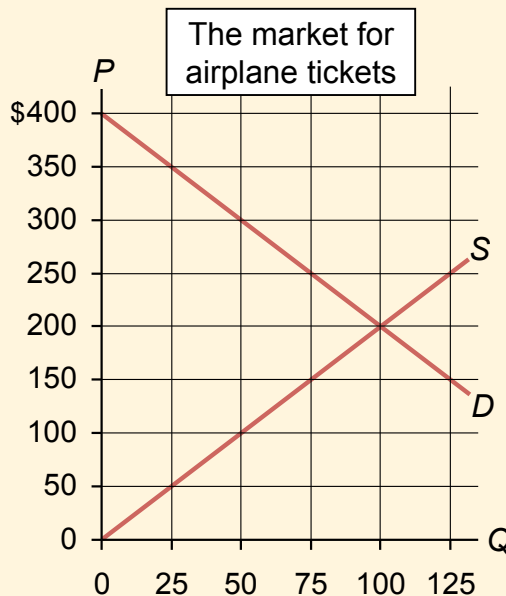
Changes in Welfare

- a. Consumer surplus changes by:
- b. Producer surplus changes by:
- c. Tax revenue changes by:
- d. Total surplus changes by

deadweight loss:

ACTIVE LEARNING 1
Analysis of tax

- A.** Compute CS, PS, and total surplus without a tax.
- B.** If \$100 tax per ticket, compute CS, PS, tax revenue, total surplus, and DWL.



The Determinants of the Deadweight Loss

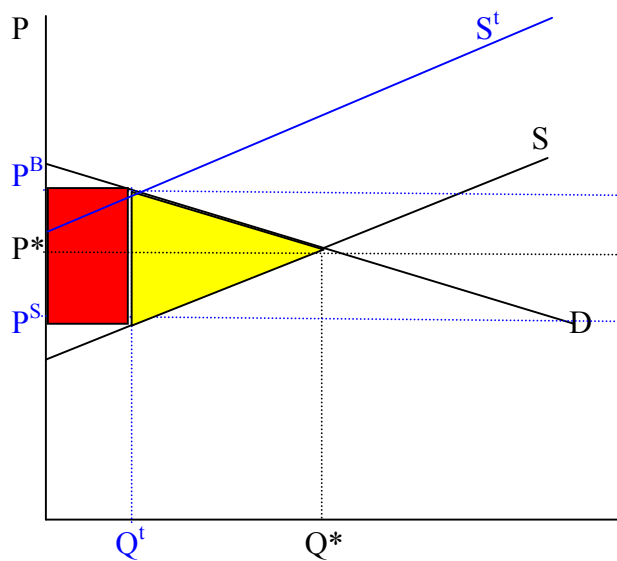
Which goods or services should government tax to raise the revenue it needs?

When is the DWL small vs. large?

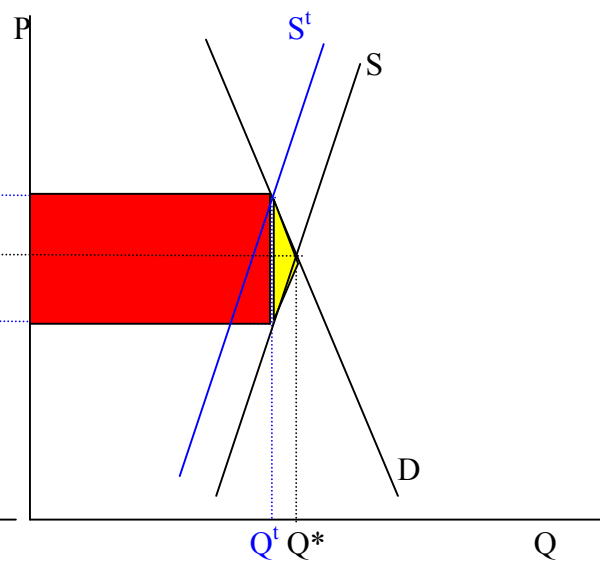
When supply is inelastic and elastic? When demand is inelastic and elastic?

We will compare a market with relatively elastic supply and demand to a market with relatively inelastic supply and demand.

1) Elastic Supply and Demand



2) Inelastic Supply and Demand



Would the DWL of a tax be larger if the tax were on:

- A. Breakfast cereal or sunscreen?
- B. Hotel rooms in the short run or hotel rooms in the long run?
- C. Groceries or meals at fancy restaurants?

The Effects of Changing the Size of the Tax

(a) DWL and the Size of the Tax

(b) Revenue and the Size of the Tax (the Laffer curve)

Suggested problems: Problems and Applications- 1, 3