Incidence of Unit Tax $u$ Paid By Consumers

From producer’s point of view, effect of tax is basically to shift demand curve down by amount of unit tax

Eqbm quantity is reduced from $Q_0$ to $Q_1$

Consumers pay higher after-tax price $P_g$

Consumers incidence: $(P_g - P_0)Q_1$

Producers receive lower after-tax price

Producers’ incidence: $(P_0 - P_n)Q_1$

Government receives revenue: $kfhn$

Deadweight loss from taxation is $fgh$
Incidence of Unit Tax $u Paid By Producers

From producer’s point of view, effect of tax is basically to shift supply curve up by amount of unit tax

Results are exactly the same as when tax is paid by consumers

Why? Equilibrium depends on relative positions of demand and supply curves. Shifting D down by $u has exactly the same effect on that relationship as shifting S up by $u

Incidence is identical, tax revenues are identical, after-tax price identical

Lesson: Statutory incidence is meaningless
Incidence Depends on Elasticities of D and S

If supply is perfectly inelastic, supplier bears the full cost of the tax

If supply is perfectly elastic, consumers bear the full cost of the tax

Rosen Figures 13/12-3 and 13/12-4

If supply is perfectly inelastic, supplier bears the full cost of the tax
If supply is perfectly elastic, consumers bear the full cost of the tax
Ad Valorem Taxes

Taxes as a percent of price

Typical example: sales taxes
An Application: The Social Security Tax

- Statutory incidence:
  - 6.2 percent of wages paid by employer, 6.2 percent by employee

- Economic incidence:
  - Labor supply is very inelastic
  - Labor demand is fairly elastic
  - Labor bears the entire 12.4 percent