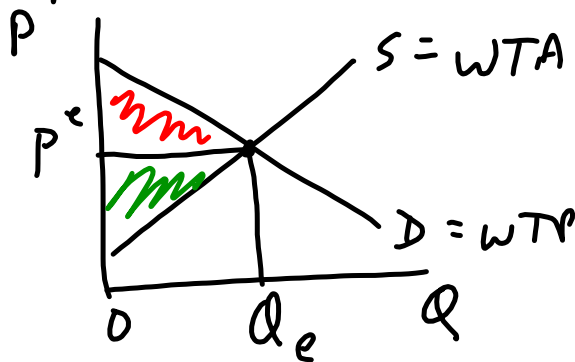
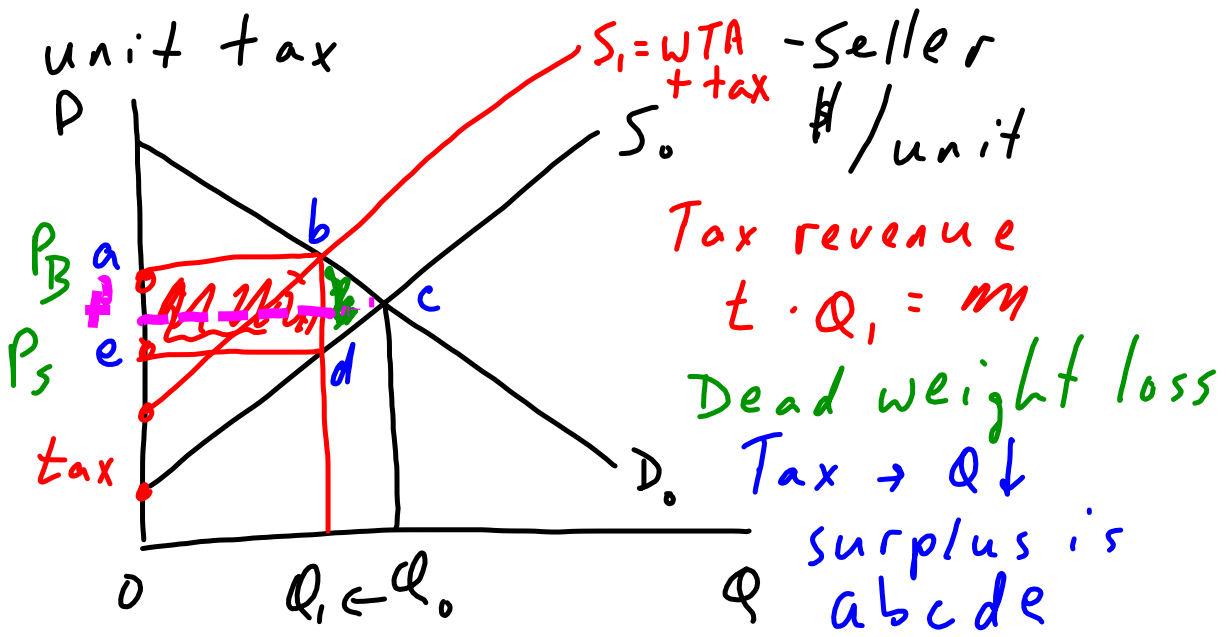


Chapter 2 - markets



- equilibrium
 - gains from trade
 → CS *m*
 PS *m*

- comparative statics
 - equil P & Q before & after exogenous shock
- eg excise tax ↑ - tax on a good
 - % - ad valorem
 - unit - physical



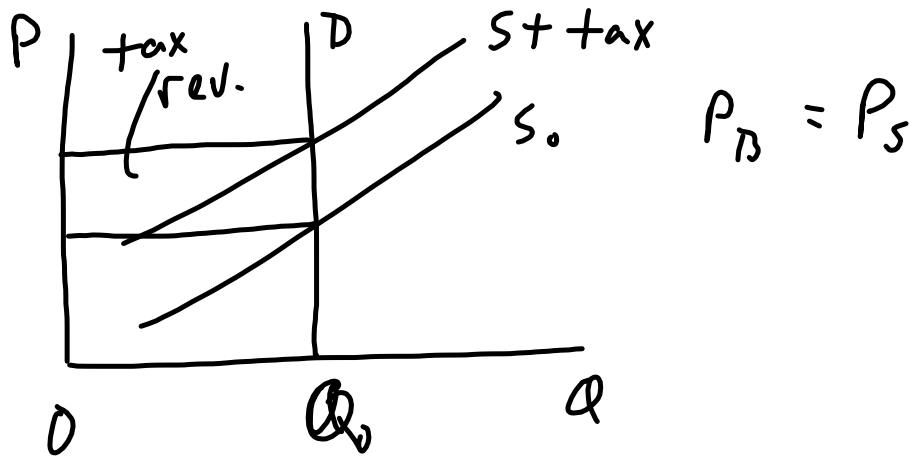
Tax Revenue $abde$ cons lose $abcf$

DWL = $abcde - abde = bcd$ prod lose $fcde$

$abde \rightarrow$ transfer to gov't

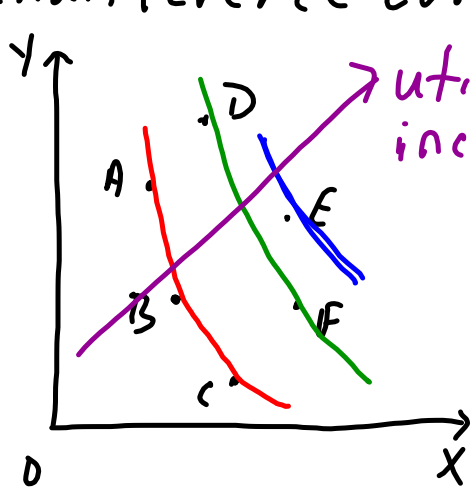
DWL if $P_B \neq P_S$ (wedge) *

DWL - ↓ as tax rate ↓
 also as elasticities ↓



D & S } positive analysis
 elasticity

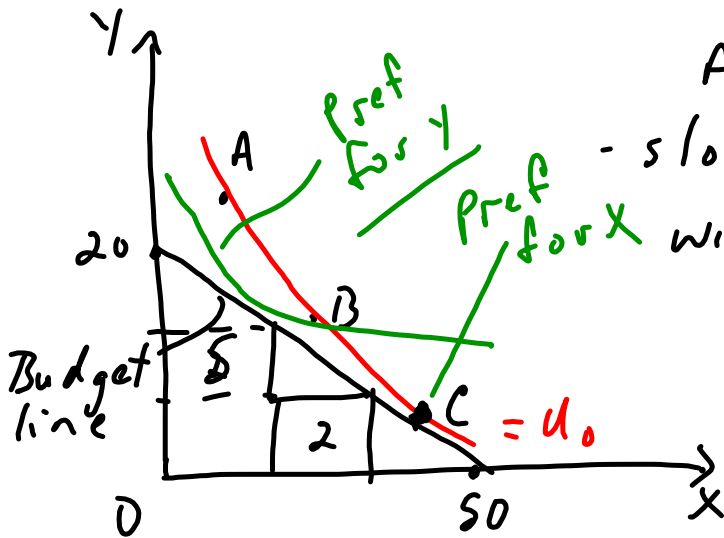
Indifference Curve - rank -



(x_0, y_0)
 (x_1, y_1)
 $(x_1, y_1) \succ (x_0, y_0)$
 $(x_1, y_1) \sim (x_0, y_0)$
 $(x_1, y_1) \sim (x_0, y_0)$
 indifference

Non-satiation - more is better

D vs A $D \succ A$ $A \sim B$ $B \sim C$
 Transitivity $A \sim C \Rightarrow D \succ C$



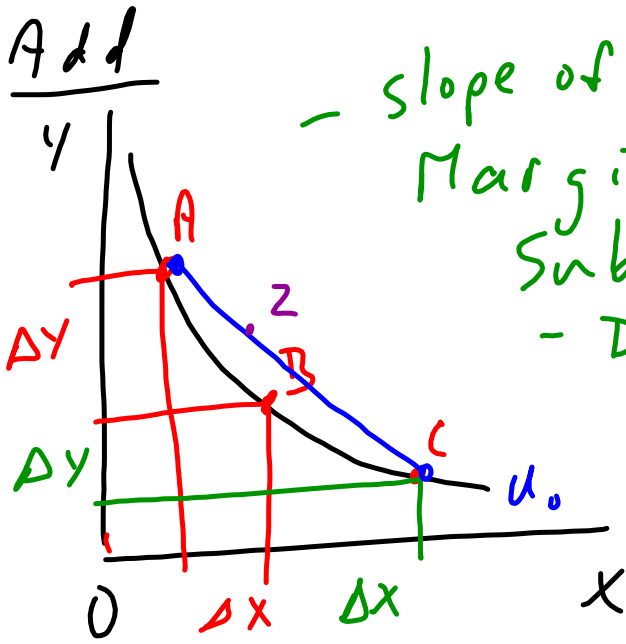
$A \sim B \sim C$
 - slope of u_0 reveals willingness to substitute between X + Y
 $A \rightarrow B$ give up some Y to get more X

- complete consumer choice analysis \rightarrow Budget

$$I = P_x \cdot X + P_y \cdot Y$$

If $Y = 0$ x intercept = $\frac{I}{P_x}$ market

$I = \$100$ $P_x = 2$ $P_y = 5$ \longrightarrow



- slope of u is
Marginal Rate of
Substitution (MRS)

- Diminishing
MRS

- u is convex
connect A & C
straight line

$$u \text{ on } \underline{AC} > u_0.$$

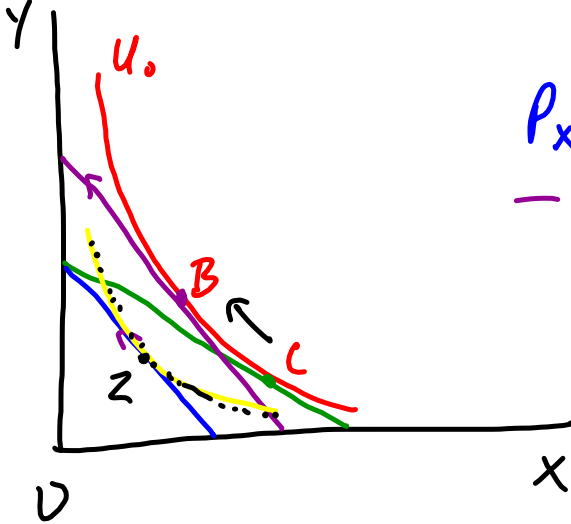
- optimum for consumer

$$MRS_{xy} = P_y / P_x$$

P_x - amount of
Y give

Bundle optimize for consumer

Substitution effect



$$P_x = 2 \quad P_y = 5$$

$$P_x \uparrow 2 \rightarrow 5$$

- \rightarrow thought exercise
compensate for $P_x \uparrow$
 $C \rightarrow B$ substitution
effect

$B \rightarrow Z$ income
effect
 $C \rightarrow Z$ total effect

Policy actions - change behavior
- through relative prices

price → generic
- pecuniary
- non-pecuniary -
recognition
stigma

Chapter - Welfare Theorems

- Box Edgeworth Box