

Principles - 1-7 :

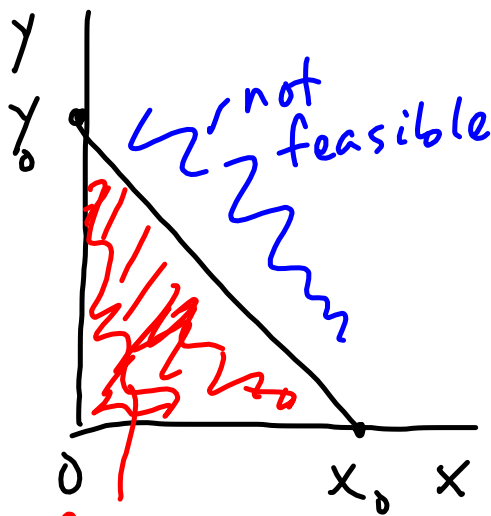
① Tradeoffs necessary - wants unlimited
resources limited
↳ give up one thing to get something else

wants \rightarrow 2 goods x, y P_x, P_y
 income $\rightarrow \underline{I}$ - \$

$$I = P_x \cdot x + P_y \cdot y$$

price of x
 times quantity
 of x - spend on
 x .

Budget
 constraint



$$y_{int.} = \underline{I} / P_y$$

$$x_{int.} = \underline{I} / P_x$$

feasible

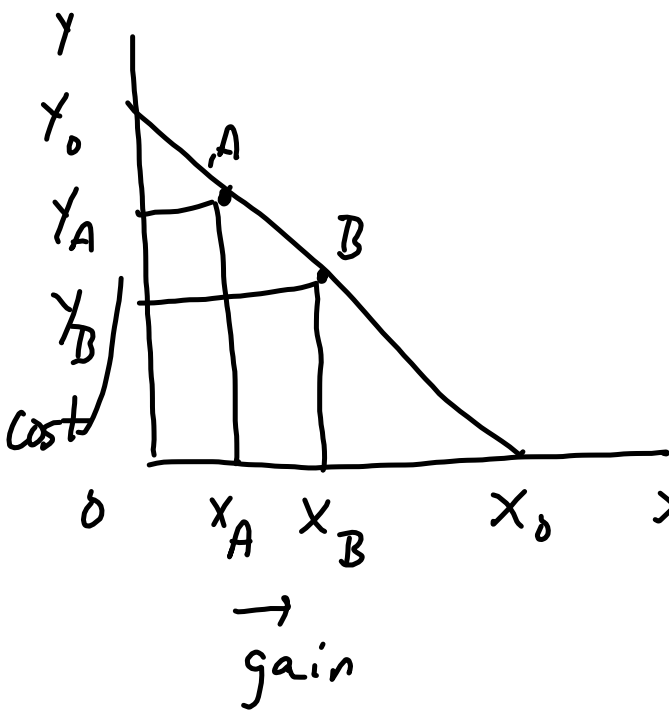
Posted offer market

seller posts a price
buyer decides how much to buy
at that price

Double auction - information rich.

seller calls out sell price (offer)
buyer " " bid price (bid)

NY stock exchange / If Bid < Offer
Chicago B of T / Bid = Offer - exchange



- without saving
be on $Y_0 X_0$
at A (X_A, Y_A)

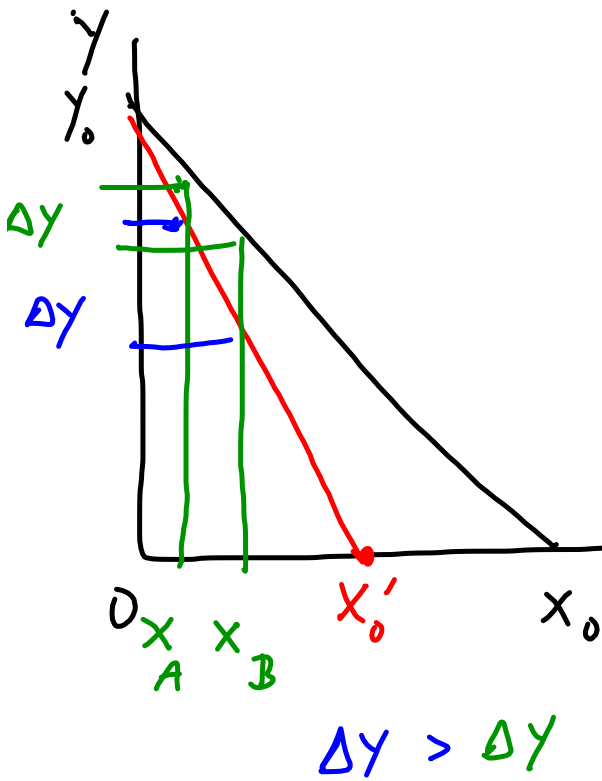
$$I = P_x \cdot X_A + P_y \cdot Y_A$$

Cost of $X_B - X_A$

is $Y_A - Y_B$

$Y_A - Y_B$ opportunity
cost of more X

Budget constraint trade off



- negative
 slope $\frac{\Delta y}{\Delta x}$
 est. $3/2$
 $P'_x > P_x$ price ↑
 opp cost of
 $x \uparrow$
 (slope steeper)

Tradeoffs \rightarrow budget
Opportunity cost \rightarrow cost of doing
more of x is y give up
↳ rank alternatives high to low
opp. cost is value of next best
alternative use

Incentives - Example Price

- respond to incentives

use price in policy context

- charity - lower price - tax deductible

\$ 100 donation

30% tax rate

so cost of \$100 donation
is \$70

sugary soft drinks are bad for
you

raise price - tax on drinks

cigs bad - tax.

economics of crime - Becker

deterrence expected cost caught

Prob_c · Fine Expected value
of speeding.

Prob_{nc} · 0 $EV = P_c \cdot F + (1 - P_c) \cdot 0$

Reduce speeding
 $P_c \uparrow$ or $Fine \uparrow$

$EV \uparrow$

Marginalism - small changes in
quantity

$Fine \uparrow \rightarrow$ marginal deterrence
effect

gradient: fines to match cost
of activity

Safety at any cost?

- marginal change in risk.
- vs marginal change in value of activity

prob of death 10 mile bike city

= prob of death living next to nuclear reactor for 20 years

Markets (gains from trade)

- divergence in values - person who has higher value can pay person with lower value

Buyer - Willingness to Pay (WTP)

Seller - " to Accept (WTA)

- $WTP > WTA \rightarrow$ exchange
 $(WTP - WTA)$ is surplus - gain from trade
 $WTP \Rightarrow Price > WTA$

Markets fail when violate
conditions for free market.

- information.

Read Ch. 1 (Principles 1-7)

- Ch. 2 →