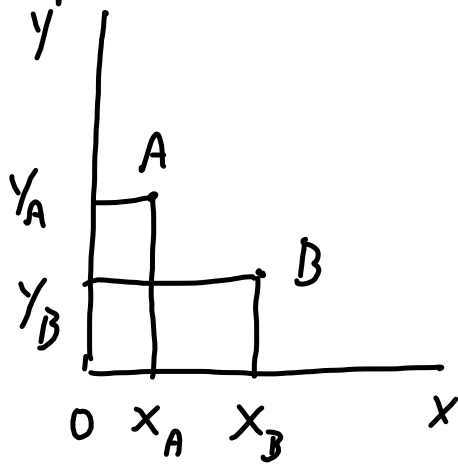
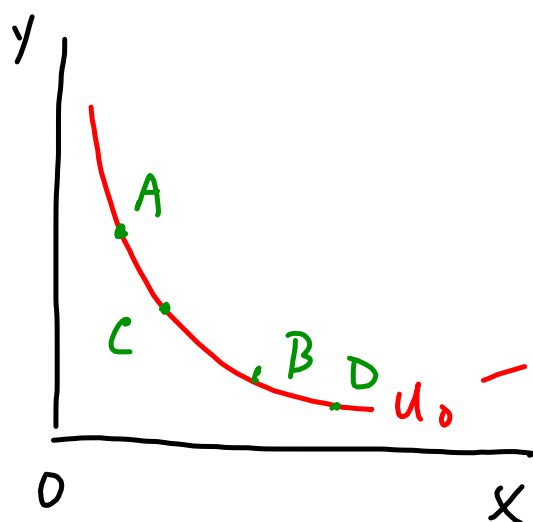


Chapter 3 - welfare economics
 - normative analysis
 - serves as benchmark for comparison - target
 - conditions necessary for target

Utility \rightarrow indifference curve
 by preferences



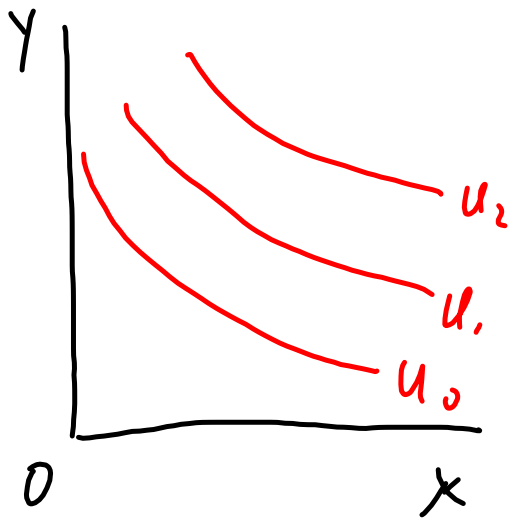
$A \succ B$
 or $B \succ A$
 or $A \sim B$



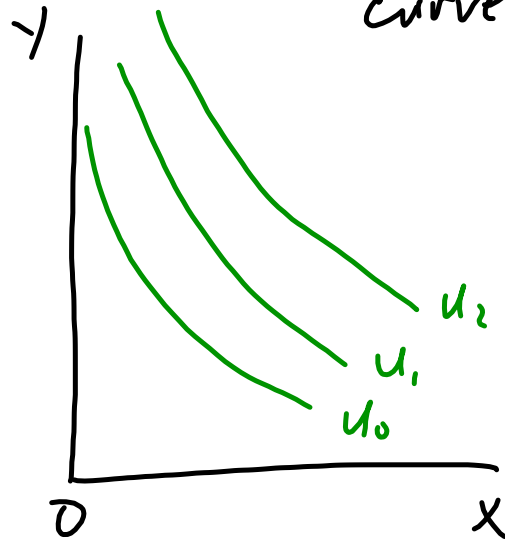
$A \sim B$ - utility
is same $A + B$

u_0 - indifference
curve

Exchange = 2 goods
= 2 persons → preferences
- indifference
curves

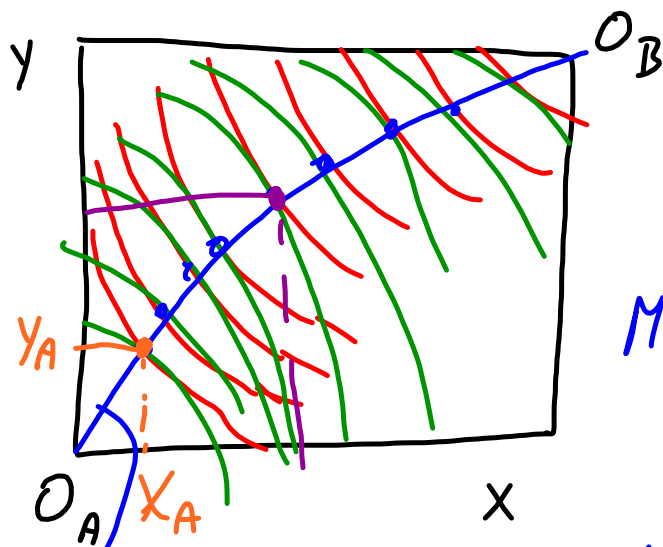


A



B

$$X_A + X_B = \bar{X} \quad Y_A + Y_B = \bar{Y}$$



• tangent slope for A & B same

$$\text{slope} = \frac{MU_x}{MU_y}$$

Marginal Rate of Substitution
 Example if $MRS = 2$
 willing to substitute 2 Y to get 1 X

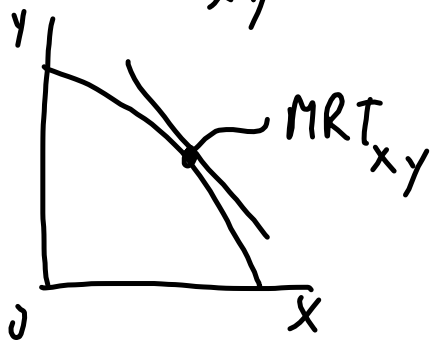
Contract locus - efficient

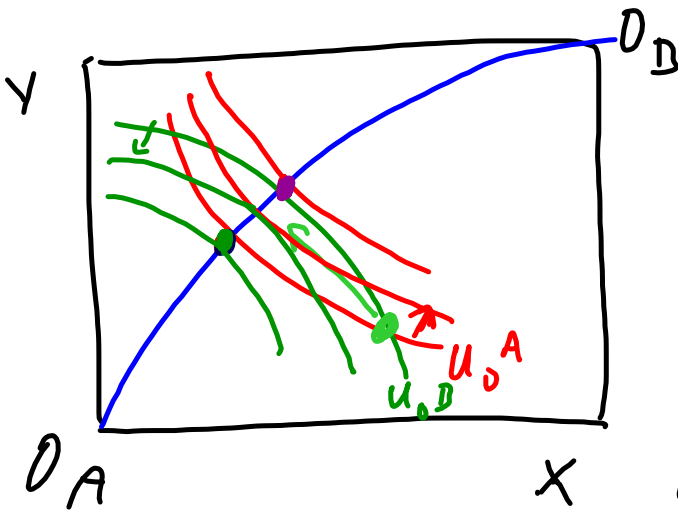
because to make A better off } Pareto
 must make B worse off } Optimal

Parato efficient if to make one person better off must make another person worse off

First Theorem
 → efficiency $MRS_{xy}^A = \frac{P_x}{P_y} = MRS_{xy}^B$

→ $MRS_{xy}^A = MRS_{xy}^B = \frac{P_x}{P_y} = MRT_{xy}$





If not on contract locus we can make both A + B better off or at least not worse off

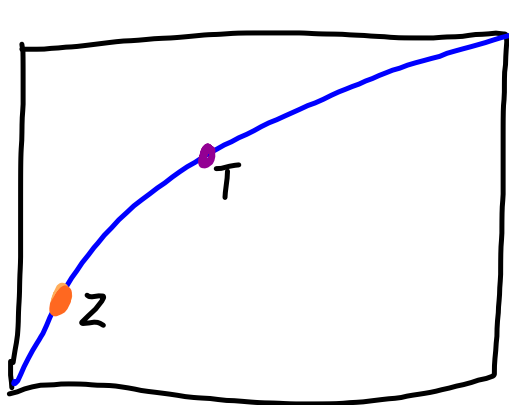
at \bullet $MRS_{xy}^A \neq MRS_{xy}^B$

move toward ~

Pareto improvement

make at least one person better without making another worse off

To answer Q about moving along
 contract locus - $MRS_{xy}^A = MRS_{xy}^B$
 all Pareto efficient



- justify Z → T?

Social welfare
 function

$$W = W(u_i)$$

O_A Bentham $W = U_A + U_B -$
 $= \sum_{i=1}^n U_i$
 is $\Delta U_B > \Delta U_A$

Weights n \propto function of
 $W = \sum_{i=1}^n \alpha_i U_i$ income
 decreasing in
 income

Rawls
 $W = \min_i \{U_i\} \rightarrow$ complete equality

$U_B = U_B(I_B, C_A)$ I - income
 C - consumption

interdependent utilities
 revealed preferences

- ↳ donations
- ↳ voting on redistribution

First Theorem

- Pareto optimality
- why we don't get there?
- market failures

- property rights fully specified
 - use
 - exclude ←
 - sell
 - transaction costs low
 - ↳ exchange - verify
 - enforce
 - market power - monopoly
- Public goods
 - Externalities