Mechanism Design
Questions
Long break - evaluations
Review

Distinction between
Direct mechanism → Report characteristics → outcomes (not very informationally economical)
Indirect mechanism → characteristics → institutions (eg. Auction) → outcome

Generality of QL preferences.
Without QL: (V_i) concave

$$V_i^*(p, w_i) = \max\{V_i(z) : p z_i = w_i\}$$

$$d_i(p, w_i) = \arg\max V_i^*(p, w_i)$$

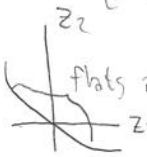
PTE: $(p, \{z_i\})$: $\forall i, z_i \in d_i(p, w_i)$, $w_i = 0$, $\Sigma z_i = 0$

With QL: (V_i) concave
PTE: $(p, z_i, m_i) \ni m_i = -p \cdot z_i$, $v_i(z_i) - p z_i = v_i^*(p)$, $\Sigma z_i = 0$

Without QL: $(\lambda_i V_i)$ concave $\lambda_i > 0$ $\Sigma \lambda_i = 1$ ("the λ_i doesn't matter w/o QL")
PTE (pretend there is a money commodity): $\lambda_i V_i + m_i$

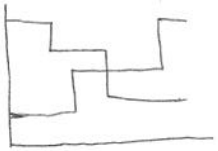
$\forall \lambda = (\lambda_1, \ldots, \lambda_n) \xrightarrow{\text{get}} (p(\lambda), z_i(\lambda), m_i(\lambda) = -p(\lambda) z_i(\lambda))$ PTE QL(λ)

Suppose λ is such that $m_i(\lambda) = -p(\lambda) z_i(\lambda) = 0$ $\forall i$. Such a λ exists by a fixed point theorem.



flats are required for PCE. (perfect substitutability)

Double auction (special case of assignment model)



* Evolved wisdom as a way of solving non-transitivity of social preferences.
* Economics of investing and entrepreneurship
* Market for lemons. Degree of freedom with respect to IC constraints

In the ordinal world, you are forced to have BB. Thus, only dictatorship and perfect competition work

Mathematical source of complementarity: nondifferentiability and non-concavity (ps 6 Q2)
There are bargaining problems other than delay. (eg preemptive investments)
Not responsible for delivery problems (Except how it relates to correlated equilibrium)

$$\underbrace{\sum_{j \neq i} v_j(z(v|v_i'))}_{\text{no delivery problems}} \longrightarrow \underbrace{\sum_{j \neq i} v_j(z(v|v_i'), v_i)}_{\text{delivery problems}}$$