# Comments on "Bundling and competition for slots: On the portfolio effects of bundling"

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# Efficiency

- Claim: bundling improves efficiency
- What do we know about the efficiency of the "equilibrium" with independent pricing (i.e. absence of bundling)?
  - Sometimes, no equilibrium. What about efficiency when there is no equilibrium?
  - Sometimes, there is an equilibrium. What do we know about its efficiency?
  - When is there an equilibrium?
  - Result comparing efficiency of (the possibly multiple) equilibria when they do exist?

# Equilibrium with bundling (1)

- Key point: determining the rent captured by sellers, i.e. the fixed fee paid by the buyer in the technology-renting equilibrium.
  - Incentive to raise the fixed fee as long as the buyer accepts the contract. Where is the threshold?
  - If the buyer refuses the contract, it will go for the best alternative, which may be either:
    - To purchase more units only from sellers with which he has a contract or
    - To purchase some units also from sellers with which he has no contract. Then, the buyer has to pay the fixed fees to get these units
    - The buyer may deviate and refuse several contracts and then go for the best alternative to these contracts

# Equilibrium with bundling (2)

- Approach taken in the paper
  - P. 15: "More precisely, we suppose that the buyer has already rented the technologies of all other firms, and is considering whether to rent also the technology of firm i".
  - P. 16: "i supposes that all other production technologies are rented already to the buyer (and thus all products in B-i are already available to the buyer at cost) and …"
  - This assumption underlies equation (1). Is this assumption justified? What about equilibria in which some contracts are not accepted? What about the buyer deviating by rejecting two or more contracts?