Acknowledgement

Based on joint work with Einer Elhauge

Key General Principle

There is NO key general principle Plausible reasons for conditional pricing to be procompetitive Reduce costs Promote complementary investments Plausible models where it is anti-competitive Einer and I have one Are others and will be more One or more may fit a particular case, or they may not No substitute for applying the theories to the characteristics of the industry in question

Our Model(s)

Loyalty discounts with buyer commitment Buyers who commit to loyalty to one supplier get

Incumbent commits to discount, not list price Robust to allowing extra commitment to max price Loyalty discounts w/o buyer commitment Incumbent offers some buyers a loyalty discount Buyers decide whether to be loyal after seeing prices

Common Features of Both Models

Buyer Commitment: Duopoly Pricing Equilibrium

Pure strategy equilibrium if large Both firms charge monopoly prices Free buyers buy from E, committed ones from I No pure strategy equilibrium if small I undercuts; captures whole If \overline{E} market If EI charges monopoly price to committed buyers; E wishes it charged more

Buyer Commitment: Mixed Strategy Equilibrium

Both charge monopoly prices sometimes and otherwise charge any price between I Emonopoly price Key property: Average price increasing in Committing buyer raises prices for everyone else Greater fraction of committed buyers creates more market segmentation, less aggressive competition So committing creates a negative externality across buyers

Buyer Commitment: Main Results

With many buyers

always commits; prices always above competitive level There exists an equilibrium in which all buyers commit, so the entrant is entirely excluded

Linear demand simulations

If cost advantage small, many buyers means only 3 Whenever one buyer commits, all commit: Exclusion is the principle competitive problem

No Buyer Commitment: Duopoly Pricing Equilibrium

No pure strategy equilibrium

If *E* knew *I E* would either price just below it and sell to all or charge its monopoly price

In either case, I would want to change its price

Mixed strategy equilibrium

Both *I* and *E* randomize prices over interval between *I* and *E*

E always sells to uncovered buyers (large discount is optimal) *I* usually (but not always) sells to covered buyers

No Buyer Commitment: Pricing Equilibrium Properties

More covered buyers reduces average prices

- Competition is over covered buyers, so more covered buyers means more reason to compete aggressively
- More covered buyers if E
- Less than $\frac{1}{2}$ covered (if I had cost adv, > $\frac{1}{2}$ possible)
- If any buyer covered, buyers better off covered Prices always elevated above competitive levels

Conditions for Relevance

Buyer commitment:

Some form of buyer commitment

Just one entrant or limited competition among entrants

Competition for loyalty discounts?

Would change things, but not necessarily eliminate consumer harm

Conclusion

Role of models like this

- Identify potential mechanisms for anti-competitive effect
- Clearly identify the important conditions
- Agencies can examine if conditions exist in any given case for any anti-competitive mechanism to be plausible
- Need many such models, no one model will cover all relevant conditions

Finding an anti-competitive mechanism is not the whole story, need to consider offsetting efficiencies