Midterm 3 scheduled for April 18.

Lecture notes 4 April

("Second degree") Discrimination and self-selection

See C&P chapter 10

Complex (not "linear") pricing can improve profits.

Simplest case: monopoly facing identical consumers. Why incur the deadweight loss, and why let consumers keep any surplus?

Nonlinear pricing (two-part tariff): want MP=MC; extract surplus in fixed fee.

Equivalent: take-it-or-leave-it offer of efficient quantity, payment=consumer value.

What if monopoly doesn't know consumer willingness to pay, or faces different kinds of consumer and can't tell which is which?

Potentially complex nonlinear price plan. Often in practice multiple such plans; "envelope" of them. How does consumer optimize against such a plan, and how can firm manipulate this? Seems scary and intractable. To a degree it is, but helpful to think about it in different way.

What if two "types" of consumer (actual or possible)? Each will choose a package, so really only need think about two points in (quantity, total payment) space. What has to be true of those two points?

Which "self-selection constraint" is likely to be binding? Implications for (a) efficiency of trade with each type; (b) who gets surplus and how much.

Package designed for low WTP type is typically (intentionally) made inefficient! Versioning. French railroad carriages. Paperback books. Incremental price to go between packages is normally above MC of additional quantity.

As those examples suggest, it's not just quantity that can be used to self-select. Product features, time, quality, ordering far in advance, etc. Look for features that are much more valuable to those who are willing to pay more for the good overall.

Search costs and willingness to pay—experimenting with deliberately obscure pricing.

Tying and bundling

Two lessons.
1. It is extremely complex; arguably little reason to think firms actually get it right (conscious optimization; evolution—role of competition?). Current controversy (FCC, Congress) over bundled versus a la carte pricing of cable TV.
2. Basic principle: does buying one good (or buying more of it) either *affect* or *reveal* willingness to pay for the other good? If that's murky then the optimal pricing pattern will be murky also.

Robust and plausible lessons are available, however, when link between demand is clear cut. Two simple cases:

A. Pricing complementary goods. Examples—supermarket parking; real-estate transactions; credit card transactions; grocery store "loss leaders"; introductory offers; Lexmark printers; Independent Ink. Incorporate profitability of each good into optimal pricing of the other. Microsoft pricing of (what might be) complements to Windows—in general; contrast the Netscape episode.

American Airlines' management accounting tools FAUDNC etc. Role in the predation antitrust case—relates closely to our next topic (strategic behavior/monopolization). Optional additional reading: http://repositories.cdlib.org/iber/cpc/CPC02-033/

B. Same general principle applies if goods are substitutes, but now an additional sale of good 1 *reduces* rather than increases sales of good 2: an added "pecuniary cost" of good 1. "Cannibalization." Recall our discussion of horizontal merger analysis and the diversion ratio: made the same point.

How will Verizon price its cellphone service if it thinks cellular is a leading alternative to wireline service? What role does competition from other cellular providers play here?

Incumbent versus entrant incentives for innovation—the "replacement effect."

Next time: start on "strategic" analysis, discussing predatory pricing. Reading (already assigned, as you probably remember): C&P chapter 11, to page 379.