Bundling in the Pharmaceutical Industry

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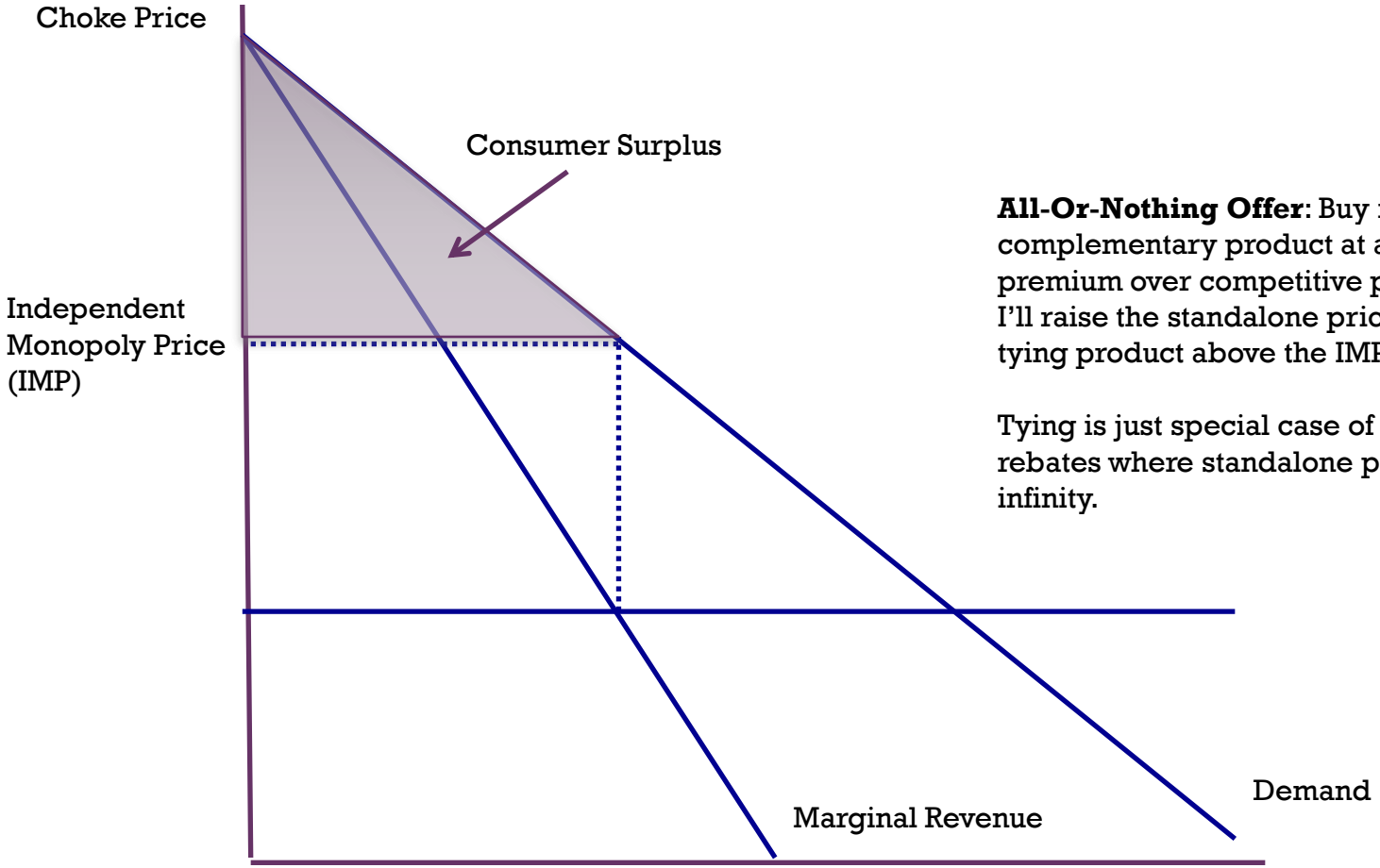
Background

- Co-author Assessing Bundling & Share-Based Loyalty Rebates: Application to Pharmaceutical Industry, JCLE (2012) (with Kevin Caves)
- Expert in Meijer et al v. Abbott in case involving bundling in HIV drugs
- Consultant to Novartis in case involving bundling in pediatric vaccines

Anticompetitive Story



All-Or-Nothing Offer: Buy my complementary product at a slight premium over competitive price or else I'll raise the standalone price of my tying product above the IMP.

Tying is just special case of bundled rebates where standalone price is set to infinity.

Single-Product and Multi-Product Loyalty Rebates

Table 1. The analogy between single-product and multi-product loyalty rebates

Rebate scheme	Number of Products	Source of leverage	Compliance requirement	Standard case	Extreme case
Bundled loyalty	Two or more	Monopoly power in tying product	Purchase tied product	Set penalty price at choke price; raise in-bundle price of tied product	Tie-in; set penalty at infinity
Share-based loyalty	One	Monopoly power over the non-contestable portion of demand	Purchase contestable portion of demand	Set penalty price at choke price; raise loyalty-compliant price of contestable portion of demand	Exclusive dealing; set penalty price at infinity

Source: Caves & Singer (2012)

Economic Credit

- "An indirect way in which a dominant firm may impose exclusivity by making such an all-or-nothing offer is by artificially increasing its first non-exclusivity price option significantly ***above the profit-maximizing level*** before offering the second option of a discount contingent on the acceptance by the distributor of exclusivity."
  - Klein & Murphy, Antitrust L. J. (2011)

- "If the standalone price ***exceeds the monopoly price***, then by Theorem 2 we conclude that consumer surplus has declined. If the standalone price is less than the monopoly price, then by Theorem 1 we conclude that consumer surplus, producer surplus and total surplus have increased."
  - Greenlee, Reitman & Sibley, Intl. J. Ind. Org. (2006)
  - Caveat: The bright-line test applies only when competition in the tied market can be characterized by homogeneous product competition

- "IMP Test": Rather than determining whether price of tied good is supra-competitive, make inference by comparing price of the tying product to the IMP

Discount Attribution Test

- Uses harm to equally efficient rival as proxy for consumer harm
- Pros: Reasonably straightforward to administer
  - Caveat: Which cost to use?
- Cons: Like most bright-line tests, may generate false positives (condemns pro-competitive conduct) and false negatives (permit conduct that harms consumers)
- Example
  - Bundle price = $10
  - Standalone price of tying product = $8
  - Imputed price of tied product = $2 ($10 - $2)
    - What tied rival would have to charge to keep buyer whole
  - Incremental cost of tied product = $3
  - Margin for equally efficient rival = -$1 ($2 - $3)

Application of Cascade in Norvir

Table 2. Application of the *Cascade* test in *Meijer v. Abbott*

	01/2004–05/ 2005	06/2005–10/ 2005	11/2005–09/ 2006	10/2006–09/ 2007	10/2007–12/ 2007
Kaletra WAC [1]	$18.76	$19.68	$21.23	$22.08	$23.39
Norvir WAC [2]	$17.14	$17.14	$17.14	$17.14	$17.14
Imputed Lopinavir Price [3] = [1] − [2]	$1.62	$2.54	$4.09	$4.94	$6.25
Max AVC of Lopinavir Allowed By *Cascade*	$1.62	$2.54	$4.09	$4.94	$6.25

Source: Authors' calculations based on wholesale acquisition costs of Norvir and Kaletra.

Summary Judgment Order: Abbott did not challenge the "conclusion that under the Cascade discount attribution rule, lopinavir's imputed price is below its average variable cost."

That Important Caveat I Mentioned

- Which incremental costs to use?
- Defendant's average variable costs used in predation tests, where cost is variable if it is avoidable.
  - Defendant's costs serve as proxy for equally efficient rival.
  - Upon exiting the market, a firm ceases to bear the economic costs associated with that product.
  - A firm that does not cover its average variable costs will shut down.
- Permits plaintiffs to incorporate certain fixed costs in measure (like R&D) so long as those costs could be avoided if the firm were to shudder.
- Problem 1: Accounting statements do not organize costs this way. Need to depose employee who can identify the relevant avoidable costs.
- Problem 2: Turns economic expert into bean counter.

Example of False Positive

- Independent monopoly price for tying = $100
- Competitive price for tied = $25
- Bundle price = $120, Standalone price of tying = $100
- Imputed price of tied = $20 ($120 - $100).
- Margin of equally efficient rival = -$5 ($20 - $25)
- Discount attribution test in this case prohibits bundle that would ***clearly*** benefit consumers.

Implementing IMP Test

- Before-After Method: Use a period of time before the loyalty rebate introduced as benchmark for IMP
  - Pros: Easy to use
  - Cons: May fail to capture relevant changes to cost or demand; gameable by defendant
- Econometric Method: Model shifts in demand/cost over time to solve for the IMP
  - Pros: Accounts for conflating factors
  - Cons: Requires econometrician; granular sales data including instrument for prices; margin data (to compare with implied margins)
- Lerner Index Method
  - Pros: Fewer demands on data
  - Cons: Requires margin data before loyalty program was adopted

If an Economist Could Design the Liability Standard . . .

- Assume other requirements of tying claim (market power, separate products) are satisfied
- Step 1: Did defendant set the standalone price for the tying product at or below the IMP? If yes, then free to go; if not, proceed to step 2.
  - Analogous to requirement in tying case that the purchase of the tying product is ***conditioned*** on the additional purchase of the tied product—that is, the standalone price of the tying product is infinity.
- Step 2: Was the defendant's strategy motivated for compelling efficiency reasons? If yes, then balancing; if not, liability is triggered.
- Idea for discussion: Use discount-attribution as a safe harbor (Step 0)
  - Pro: Would give firms guidance
  - Con: Test also generates false positives

Efficiencies

- IMP test already accounts for certain efficiencies
  - E.g., Demand shock (or cost increase) that would justify higher standalone price for the tying product
- But IMP test focuses on static welfare, when bundling strategy could have dynamic effects
- When would you doubt that bundling strategy was developed for efficiency reasons?
  - Contemporaneous evidence showing
    - That goal is to induce compliance instead of maximizing profits
    - That alternative strategies considered included options that were clearly anti-consumer