Government Standards To Control Monopolization

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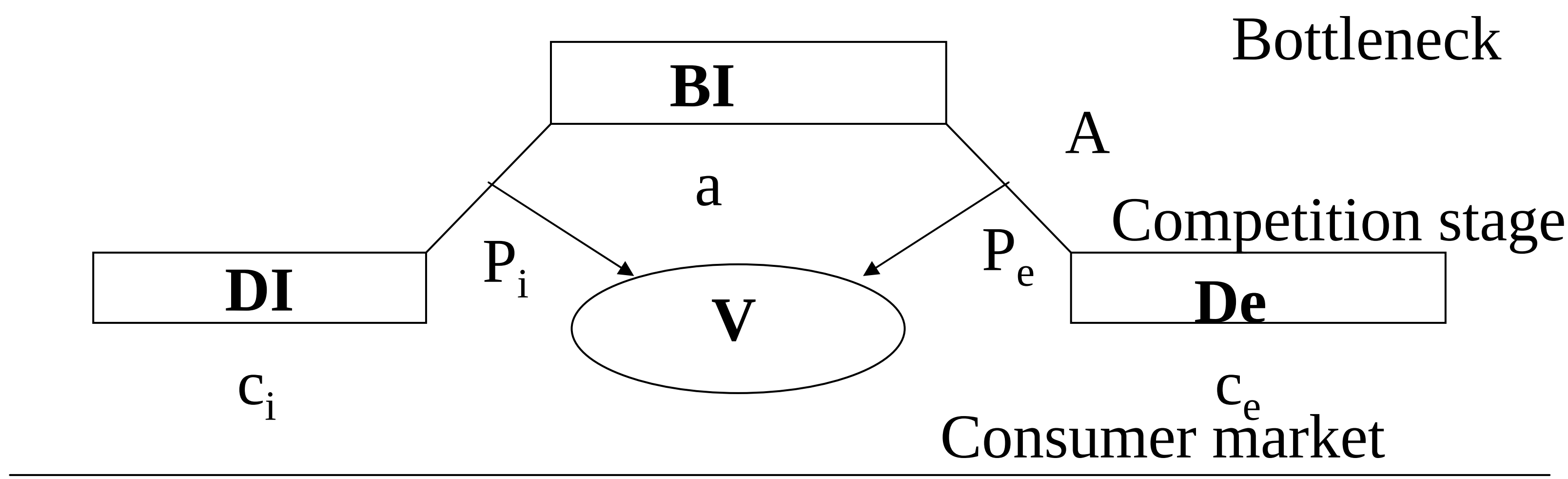
How to Analyze Challenged Conduct for Monopolization?

- The slogan is: “Antitrust should protect competition, but not competitors”
  - But what does it mean in practice?
- Irrespective, at least *as a predicate*, any monopolization claim must establish a direct and causal link between the conduct at issue and significant harm to competition in well-defined relevant market (or markets)
- But how should a decision-maker delineate conduct that does harm “competition” by harming scarce rivals from standard, day-to-day market interactions?

Problem of Characterization

- The challenge arises because “monopolization” or “abuse of dominance” hard to distinguish from “hard-nosed” competition.
- Profit-driven firms
  - Strive to achieve market dominance (build share)
  - Create competitive advantage vis-à-vis rivals
  - Strive to cement and maintain the achieved competitive advantage by, e.g., product innovation, cost reductions, marketing, rising rival’s costs of doing business and denying them demand
  - While at the same time striving to extract maximum profits from consumers using “sophisticated” pricing and other marketing strategies



Telecom	CATV
Electricity	Airport Rights
Railroads	CRS
Gas and Oil Pipelines	IP
ATMs	Rockets and Satellites
Copy Machine Parts	Main Frame Parts
Windows and Applies	Physicians and Labs
Pubs and Beer	Automobile Radios

Profusion of Tests

- Many standards for detecting exclusionary conduct
- Prof Salop et al promote “the consumer welfare standard”, which may really be intended as a social welfare standard
- Prof Elhauge advocates condemnation of sophisticated pricing and other marketing arrangements if they tend to shut out smaller rivals
- Prof. Edlin argues for protection of entrants by means of above-cost price floors
- Williamson’s “don’t raise output” test
- Baumol’s “window shade down” test
- We have been advocating for the “sacrifice test”, which has appealed to the DOJ (*Trinko*, US v AA) as well as to the Sup Ct decision in *Trinko*
- Sir John (Vickers) wisely calls for more economics but does not resolve the contest of the tests

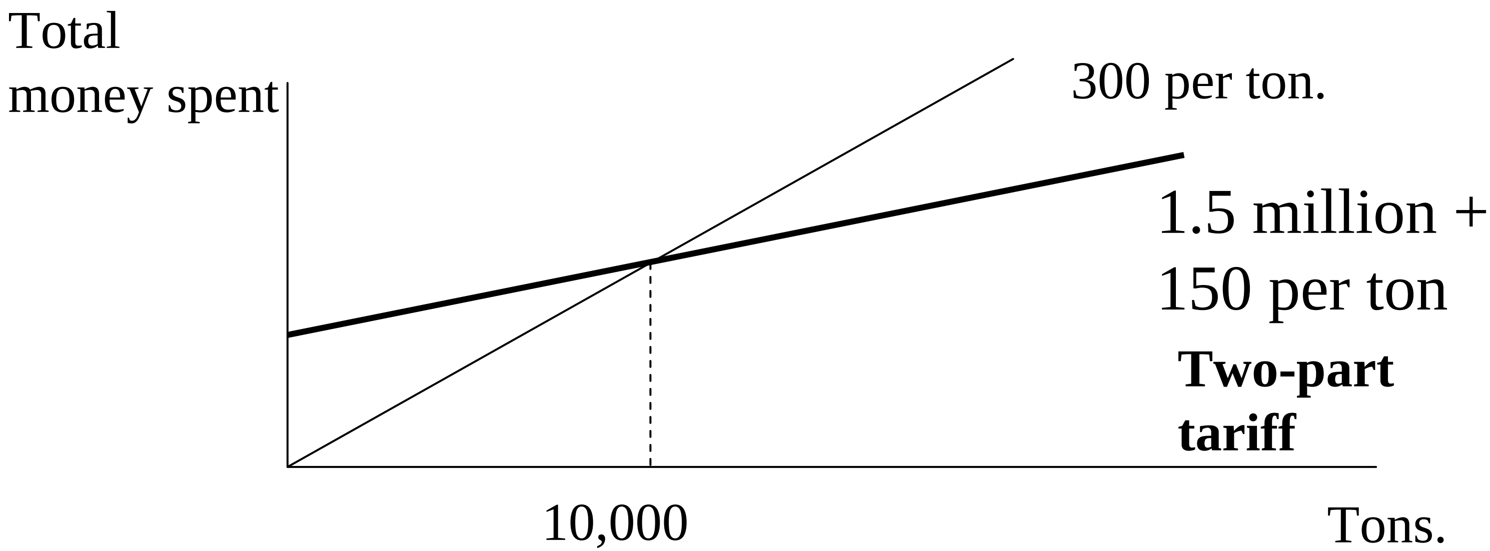
Easy Debunkery

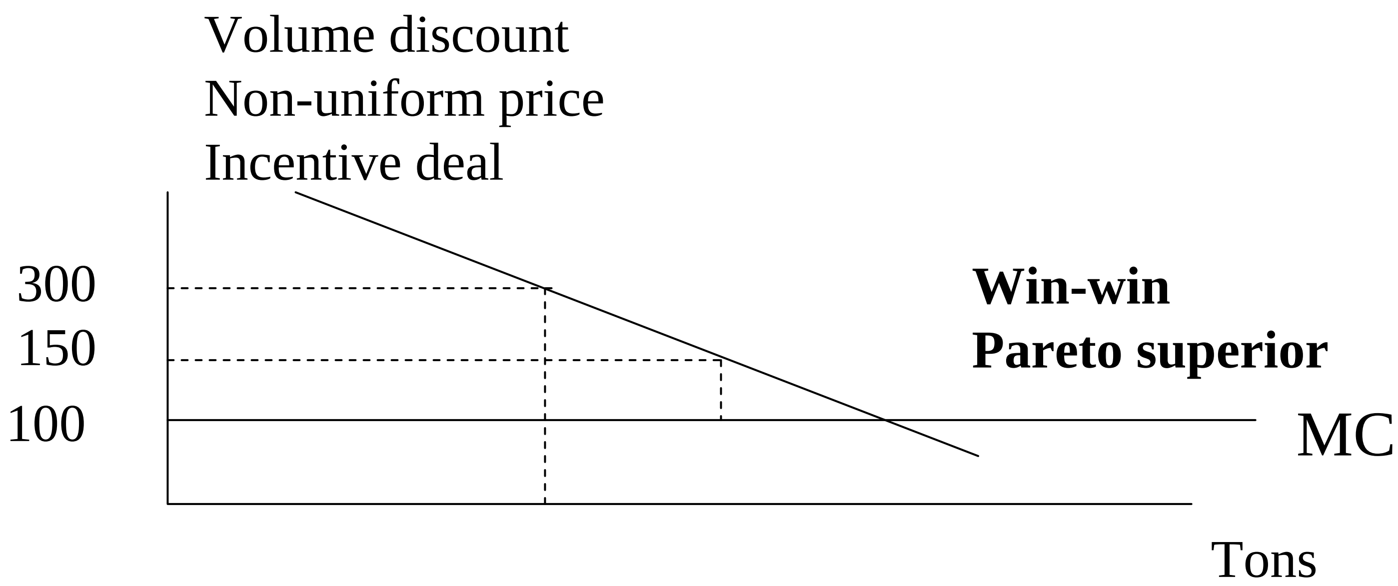
- Elhauge’s test
- Williamson’s test
- Baumol’s test

What about the other leading proposed standards?

- There are suspicions that “**dirty sophisticated pricing**” and other marketing arrangements are anticompetitive since they are not apt to appear in “perfect competition.”
- Mainstream economics knows that volume discounts and bundling and other departures from marginal cost pricing can be important to foster consumer welfare in modern markets. They are part of competition.
- So a standard that condemns such conduct wherever it harms rivals is ill-advised.

Non-linear pricing is needed for Pareto





Example

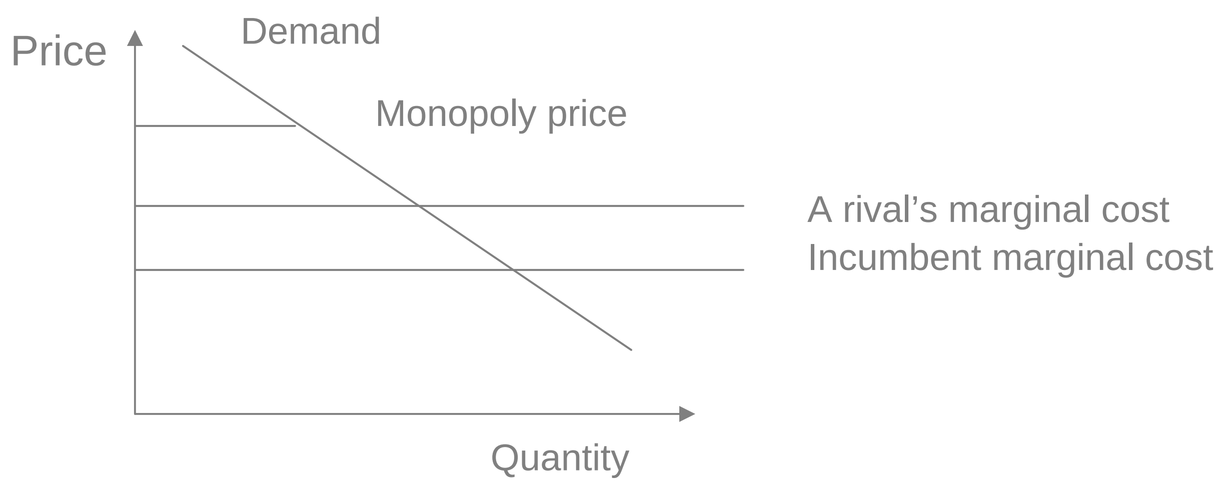
American Airlines

Reallocation of current plane fleet in response to changed competitive conditions on some route(s)

- each route profitable post-capacity expansion
- marginal costs of expansion difficult to measure =>valuing planes at profit contribution on the least profitable route(s) or at going lease rates?
- no real gate/slot constraints at DFW potentially implying that rivals' supply very elastic

The Consumer Welfare Standard?

In this simple situation, **consumer welfare** is improved if all competitors with marginal costs below the monopoly price are protected from competition.



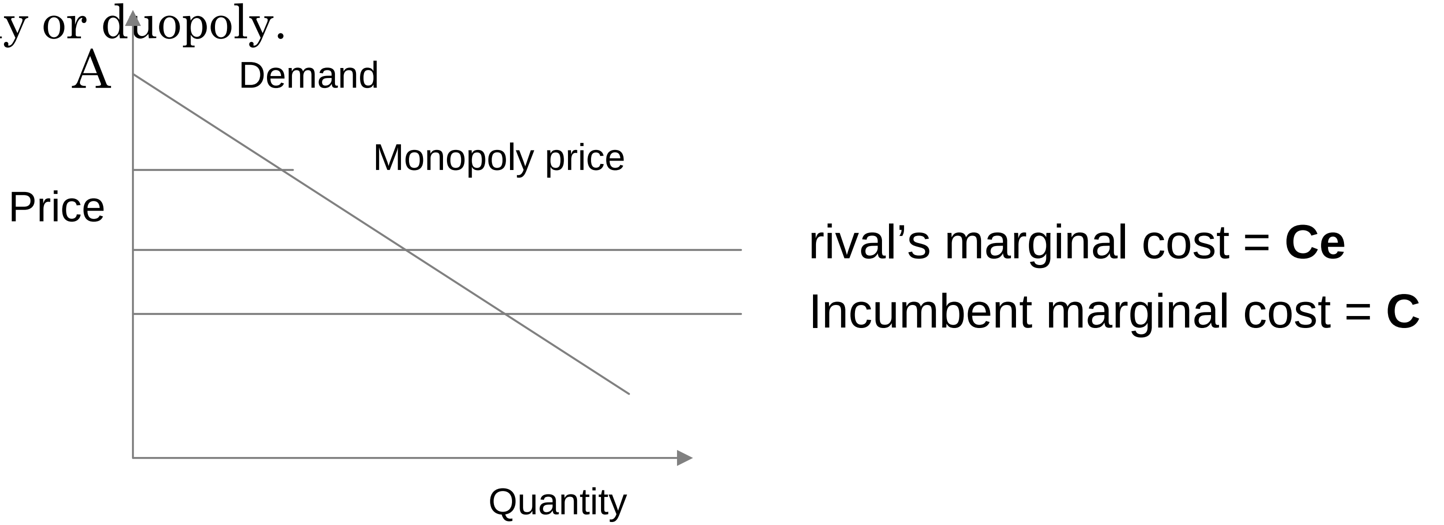
However, **total social real income** is maximized if rivals with marginal costs close to the incumbent's are protected, but higher cost rivals are forced to compete. The threshold can be calculated on the blackboard, but cannot reliably be discerned in the field.

A Research Program

- By definition, the social welfare standard is perfect if the agencies, courts and market participants all perfectly know the information needed!
- But such info not the kind that firms know to assess their profits, and government knows less – that's why we choose market economy.
- **Research program**: define info structure for market participants and court; define monopolization standard for assessment, along with damages and litigation costs; analyze impacts on incumbents' and entrants' conduct in market and court; and assess resulting social welfare.

A Modest but Upsetting Start

In this simple situation, demand is linear for a homogeneous product, there are constant returns to scale and prices are the strategic variables. The issue is monopoly or duopoly.



Here duopoly means the incumbent accommodates the entrant, they both price at ce, and they each get half the market demand.

Monopoly-------------------Duopoly

Inverse demand: $P = A – BQ$, assume $A>ce>c$

Pmonop = (A+c)/2 prices
Pduop = ce

Rmonop = $(A\text{-}c)^2/4B$ profits Rduop = (A-ce)(ce-c)/2B

Rmonop – Rduop is increasing in A

SWmonop – SWduop = (A-c)(4ce-3c-A)/8B

SWmonop – SWduop is (largely) decreasing in A

A* = 4ce – 3c. When A>A*, SWduop > SWmonop

Here monopoly is better than duopoly (both firms price at ce) for total social real income if 4ce is greater than 3c + A, or if A is less than A* = 4ce – 3c

The incumbent knows A, the judiciary can observe A only with some

Decision Modeling

The incumbent expects to bear legal costs of L if it competes hard, and to win the right to prevail with probability F. If it loses, it must pay damages D and accommodate duopoly. The incumbent is risk neutral, earns Rmonop and Rduop in those circumstances, respectively. **The incumbent decides to compete hard if:**

$$F \cdot R_{monop} + (1-F) \cdot (R_{duop} - D) - L > R_{duop},$$

or

$$R_{monop} - R_{duop} > [(1-F)/F] \cdot D + L/F$$

$$\text{Rmonop} - \text{Rduop} > [(1\text{-}F)/F] \cdot D + L/F$$

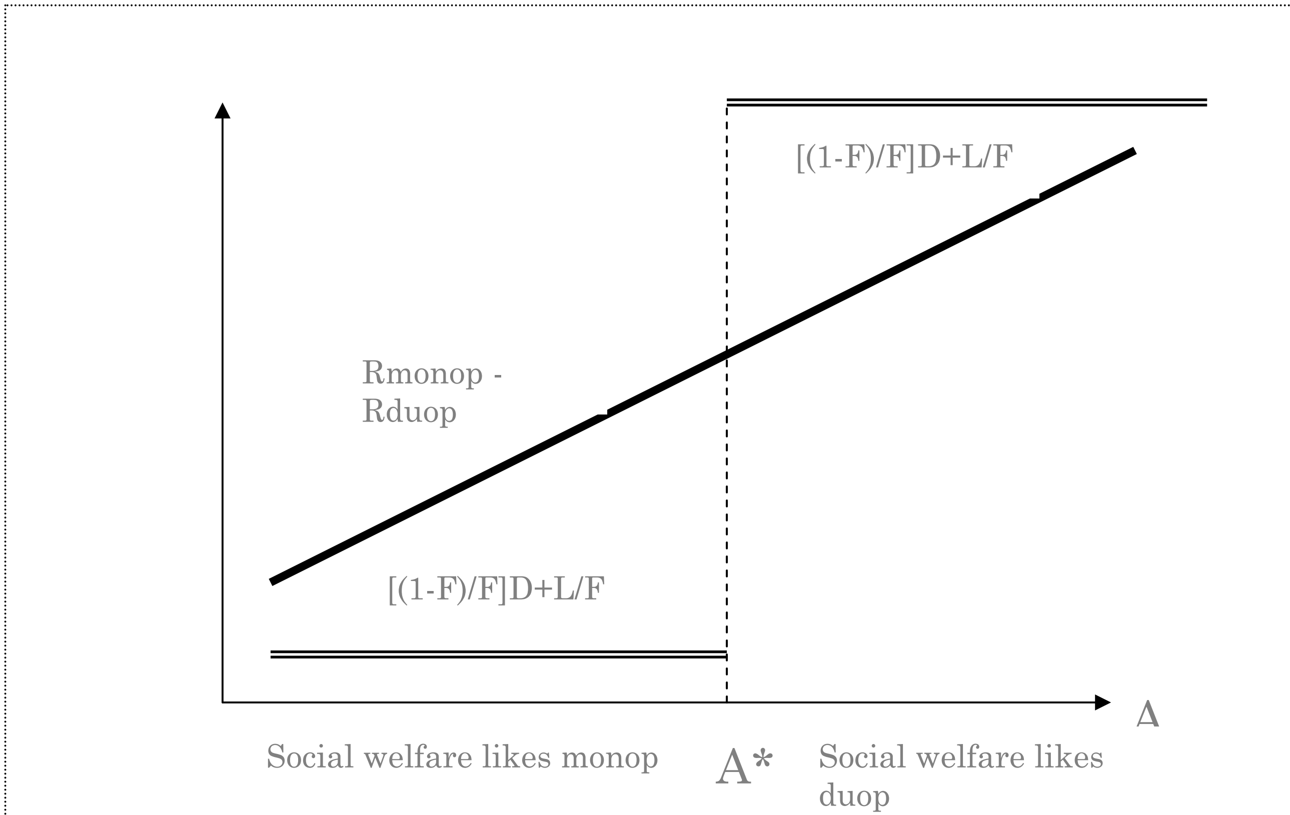
The incumbent’s decision whether to beat the higher cost entrant depends on A for two reasons.

First, for bigger A, Rmonop – Rduop is bigger.

Second, for bigger A, F may be smaller. As A increases, social welfare favors duopoly by more. If the court’s view of A increases with the true A, then bigger A would lead to higher odds that the defendant will lose its monopolization case. On the other hand, if the court’s fact-finding is unreliable, then the court’s view of A, and the resulting F, may not be much influenced by the true A.

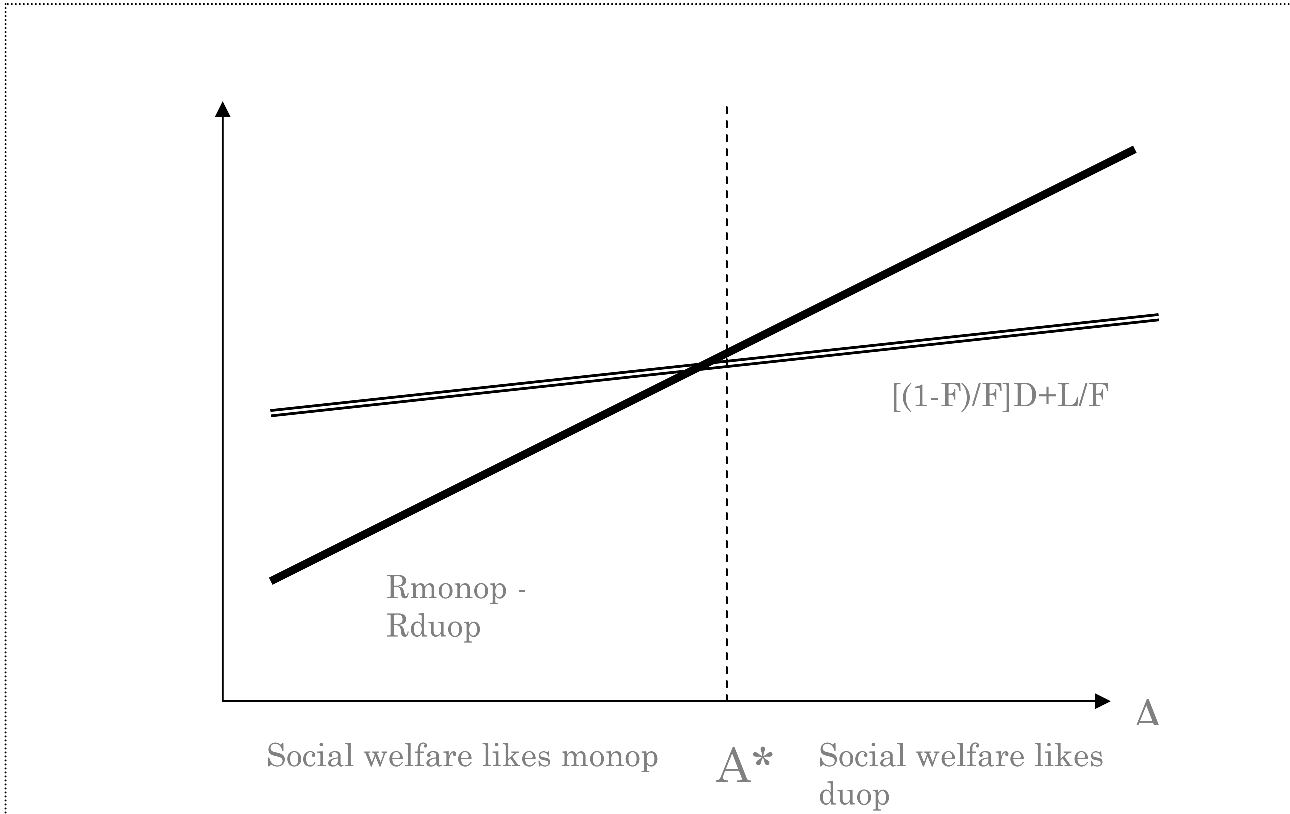
Note that as A rises, if F falls, then (1-F)/F rises.

How well does the social welfare standard do?



Extremely well if the judicial process is expected to be accurate!

How well does the social welfare standard do?



The standard is completely perverse with relatively unreliable info!!! It induces accommodation and hard competition in just the wrong cases.

- Here the social welfare test permits tough competition to create monopoly where duopoly would be better

(despite higher costs of entrant).

- Social welfare test induces accommodation where monopoly is best.
- The upside-down results are due to excess ambition for regulation, where key non-market judgments cannot be accurately made.

Scope for Agreement on a Better Test? – ”The Sacrifice Test”

- Commonsense analytical steps under various approaches:
- Step 1: Is harm to competition likely and what are the sources of (incremental) monopoly profits from exclusion?
- Step 2: Has there been some profit sacrifice?
- Step 3: Is the predator likely to recoup the sacrificed profits?

Example of Sacrifice

Profit of challenged firm	Avoid the challenged conduct	Engage in the challenged conduct
Competition is viable	5	2
Competition is not viable	10	7

The conduct is profitable to the challenged firm if it harms competition. **The conduct is not part of competition.**

Example of No Sacrifice

Profit of challenged firm	Avoid the challenged conduct	Engage in the challenged conduct
Competition is viable	5	8
Competition is not viable	10	13

Here, the conduct is profitable to the challenged firm regardless of its impact on competition. The conduct is part of competition. Rivals may be weakened nevertheless.

Another Example of No Sacrifice

Profit of challenged firm	Avoid the challenged conduct	Engage in the challenged conduct
Competition is viable	5	8
Competition is not viable	10	9

Here, the conduct is profitable to the challenged firm facing competition, regardless of its impact on competition. The conduct could be part of competition. The conduct could also be used for entry deterrence.

The Sacrifice Test is Familiar in Simple Circumstances

- Between firms selling homogeneous products with constant returns to scale, the sacrifice test is akin to Areeda-Turner. Pricing below one's own marginal costs (without promotional pricing or other demand complementarities) is apt to entail sacrifice. (Of course, recoupment and dangerous harm to competition are other needed elements of proof.)
- A bottleneck firm that refuses to deal or more subtly forecloses downstream rivals may fail the sacrifice test if it could have profited from dealing, but makes more by weakening or killing rivals off.

The Sacrifice Test vs. the Consumer Welfare Standard

- Consumer and social welfare should guide the formulation of the practice of antitrust policy and law. But that does not mean that firms and the judiciary should be asked or expected to employ that standard for their own management decisions about conduct.
- US Supreme Court's Grinnell case focuses on "willful monopolization," which can be modeled economically as sacrifice.
- Conduct that is part of the competitive process should not be condemned, inasmuch as the purpose of antitrust is the protection of competition.

The Sacrifice Test vs. the "Consumer Welfare" Standard

- The most important impact of antitrust is on firm behavior through counseling, not litigation or investigation.
- It is vital that fear of the "consumer welfare" or other standards not stultify competition out of concern that a rival will be weakened – since no clear lines can be drawn.
- Firms are equipped to make their business decisions based on views of impacts of their conduct on their profits, and they can be successfully guided by counseling to avoid sacrifice.
- The sacrifice standard protects competition, with its imperfections, and is probably the best that can be done!
- That is certainly better than adopting a standard that systematically stultifies competition by attacking practices that are part of it.

Sacrifice and Welfare Test Coincide

- The prescriptions from the profit sacrifice tests max social welfare in many market settings
- Seeking profits is generally conducive to economic welfare: hence coincidence not surprising
- When incumbent can extract maximum profits from the market without distorting consumer choices, a choice of profit sacrificing strategy that harms competition is presumptively inimical to welfare.
- Examples include a choice of product design or the price for access to a bottleneck input
- But when profit maximization leaves surplus un-extracted, even absent competition, there could be exclusion seemingly even without sacrifice

To Sum Up the Discussion

In general, it is dangerous for regulation to be excessively ambitious, even with perfect intent, when it needs infeasible information.

- In contrast, the less ambitious sacrifice test protects conduct that is part of competition, even if it harms and weakens competitors.
- The sacrifice test is quite general in its applicability to diverse circumstances.
- The sacrifice test is well-defined, though sometimes takes some work to sort out.
- Do more research focusing on info structure.

Example: Inferior Source of Supply

- An incumbent may have an incentive to exclude a rival when there exists an inferior alternative source of supply to its monopolized product
- Consumers demand a system with two components and are willing to pay up to $100.
- An entrant can produce standalone component at a lower cost than incumbent. Incumbent profits increase by withdrawing its component and charging a compensatory (=ECPR+) price for bottleneck.
- Not an optimal strategy if another firm can offer inferior alternative. Then max price for system = willingness to pay for alternative < 100.
- With these facts, incumbent has an incentive to foreclose the more efficient rival n order to drive it irreversibly out of the market
- (However, if incumbent could force exit of alternative to bottleneck it would rather do that!)
- In this example, if profit sacrifice is gauged against the profits under ECPR+, it is a good welfare test.

Example: Discounting

- Assume that, like in Ortho v Abbott, a consumer demands a package of five products
- Abbott has a monopoly on three and two are competitive
- Abbott’s bundled price for five tests is allegedly less than the price for three tests plus the incremental cost of the two competitive tests
- Abbott can extract full surplus from the buyer, w/out foreclosing Ortho from the competitive tests
- Clear profit sacrifice (but the case is not clear as to the non-coincident market that strategy would affect)

Example: Substitute software

- Incumbent controls OSS and produces a browser that competes against standalone browser.
- Browsers are substitutes so that the value of adding a browser when another is already pre-installed is less then when there is no other browser.
- Consumers are willing to pay something extra for having two browsers installed
- Exclusion is unprofitable if monopoly over browsers does not generate additional profits in non-coincident markets because extra value can be extracted through OSS pricing
- However, exclusion may be profitable when non-coincident profits exist (B&W) and/or if regulatory rules establish an inefficient price floor for the browser

Market Definition and Competitive Constraints

- Step 1 is uncontroversial but is critical to sound competition policy
- It requires the complainant to lay out clearly its main concerns with the dominant firm’s business strategy
  - Which are the possible non-coincident markets [ie, markets other than in which conduct takes place] in which conduct can harm competitors?
  - Is conduct in fact likely to harm enough pertinent rivals to actually harm consumers?

Recoupment

- Step 3 is not directly required in the EU (*see* Tetra Pak) but key in the US
- Vickers notes that: "Arguably,…,dominance – without which there can be no abuse in European Law – implies ability to recoup"
- O/W link it to the assessment of the challenged strategy: is the "aggressive" conduct more profitable than the "preferred" conduct *only* because rivals are weakened or induced to exit?

Profit Sacrifice

- It is also commonsense that if conduct entails *profit sacrifice* and also lessens competition, it is “predatory” or “exclusionary”
- Controversy is whether “profit sacrifice” can
  - be defined, and
  - whether it is necessary, sufficient, or neither, for proving anticompetitive conduct