Firms Behaving Badly

**A Real-Life Telephone Conversation**

R.C.: *I think it’s dumb as hell, for Christ’s sake, all right, to sit here and pound the shit out of each other and neither one of us making a fucking dime.*

H.P.: *Well . . .*

R.C.: *I mean, you know, goddamn! What the fuck is the point of it?*

H.P.: *Nobody asked American to serve Harlingen. Nobody asked American to serve Kansas City, and there were low fares in there, you know, before. So ...*

R.C.: *You better believe it, Howard. But, you, you, you know, the complex is here—ain’t gonna change a goddamn thing, all right. We can, we can both live here and there ain’t no room for Delta. But there’s, ah, no reason that I can see, all right, to put both companies out of business.*
H.P.: But if you’re going to overlay every route of American’s on top of every route that Braniff has, I can’t just sit here and allow you to bury us without giving you our best effort.

R.C.: Oh, sure. But Eastern and Delta do the same thing in Atlanta and have for years.

H.P.: Do you have a suggestion for me?

R.C.: Yes, I have a suggestion for you. Raise your goddamn fares 20 percent. I’ll raise mine the next morning.

H.P.: Robert, we ...

R.C.: You’ll make money, and I will too.

H.P.: We can’t talk about pricing.

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In 1982 Robert Crandall (MBA, Wharton, ’60) was the CEO of American Airlines, Howard Putnam the chairman of Braniff International Airways. (U.S. Court of Appeals, 53 USLW 2209)
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The ACCC, the Australian Competition & Consumer Commission, oversees the Trade Practices Act. In the U.S., the FTC, the Federal Trade Commission, performs a similar rôle. In the EU, the European Commission DG Competition is the equivalent regulator. (See Oceans Apart, from The Economist.)
Competition Policy

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3. vetting *mergers and acquisitions*: either banning outright, or approving subject to “remedies,” such as divesting part of the merged entity, or offering licences, or access to facilities.
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*Colluding:* forming cartels to support price or restrict output.
In this lecture, we discuss:

1. Monopolies (pp. 347–353)
2. Merger Analysis (pp. 352–3)
3. Measuring Market Structure
5. Entry-Deterring Strategies
6. Limit Pricing
7. Predatory Pricing (pp. 358–61)
8. Excess Capacity
9. Exit-Promoting Strategies
10. Resale Price Maintenance (p. 358)
11. Tying (pp. 359–60)
12. “Declaration” of an Essential Asset
I. The Dead Weight Loss DWL of Monopolies

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**Inefficiencies.**

Fall in Consumers Surplus = areas $A + B$.
Rise in Producers Surplus = areas $A - D$.
(Profit $\pi =$ Producers Surplus $-$ Fixed Costs.)
Monopolist’s Profits: A Social Cost?

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To what extent do the dynamic incentives of patents and copyrights mitigate these two reasons?
2. **Merger Analysis** — *Case: Coca-Cola’s market*

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Perhaps the takeover came because Pepsi-Cola had been trying, but abandoned, to buy Seven-Up.
The FTC’s injunction was supported, and the merger abandoned.

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The FTC: the market was “carbonated soft drinks”: the merger would increase C-C’s market share by 4.6% nationwide, and by 10 to 20% in many geographic submarkets (distribution channels). Given C-C’s share of 40 to 50% already, the merger would significantly reduce competition.
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A “horizontal” merger: between competitors.
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A common market-structure measure is the *N-firm concentration ratio*: the combined market share of the *N* largest firms in the market.
<table>
<thead>
<tr>
<th>obsolete ASIC code</th>
<th>Industry</th>
<th>Percentage of turnover accounted for by:</th>
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<tbody>
<tr>
<td></td>
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<td>Largest four</td>
<td>Largest eight</td>
</tr>
<tr>
<td>2190</td>
<td>Tobacco products</td>
<td>100</td>
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</tr>
<tr>
<td>2163</td>
<td>Biscuits</td>
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<td>99</td>
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<td>2945</td>
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<td>95</td>
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<td>2770</td>
<td>Petroleum refining</td>
<td>85</td>
<td>100</td>
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<td>3231</td>
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<td>95</td>
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<td>2751</td>
<td>Chemical fertilisers</td>
<td>81</td>
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<td>73</td>
<td>97</td>
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<td>2642</td>
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<td>81</td>
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<tr>
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<tr>
<td>2872</td>
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<td>69</td>
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<td>Butter</td>
<td>58</td>
<td>84</td>
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<td>2765</td>
<td>Soap &amp; other detergents</td>
<td>48</td>
<td>60</td>
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<td>3353</td>
<td>Refrigerators &amp; household appliances</td>
<td>46</td>
<td>61</td>
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<td>Jewellery &amp; silverware</td>
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Selected Australian Industries 1982–83
The table shows not-so-recent four-firm, eight-firm, and twenty-firm concentration ratios for selected Australian industries in 1982–83, using the now-obsolete ASIC industry classification scheme.
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Another measure of market concentration is the Herfindahl index (H.I.): the sum of the squared market shares $S_i$ of all firms in the market:

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e.g. a market with two equal firms in it has an H.I. of $0.5^2 + 0.5^2 = 0.5$
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The H.I. of a market with $N$ equal-sized firms is $\frac{1}{N}$. 
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• as a firm faces more elastic demand, the mark-up (or margin) between $P$ and $MC$ narrows, as price $P$ falls.

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Extreme (perfect competition): firms face horizontal demand curves of infinite elasticity, so that $P = MC$, and there is no DWL: an efficient allocation.

With free entry and exit, all (economic) profits competed away ($\pi = 0$), so that

$$P = MC = \min AC \text{ at } Q_{MES}$$
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a single seller or monopolist, and \( P > MC \) and inefficient for two reasons:

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Note: $Q_{MES}$ is the operating level that minimises the average cost $AC$: the minimum efficient scale, or $MES$.

(See Lecture 21 — Monopolistic Competition — for graphs.)
Suggests firms face a continuum of pricing possibilities, depending on the nature of the competition they face:

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Need to assess the particular circumstances of the competitive interaction of firms, and not rely solely on the H.I. or concentration ratios.
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Contestability requires “hit-and-run entry” (HARE): if a monopolist raises price above \( MC \), then a HAREentrant rapidly enters the market, undercuts the price, reaps short-term profits, and exits just as the incumbent retaliates.
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With airlines, the threat of entry leads a monopolist to moderate its prices, but not down to $AC$: not perfectly contestable.
If sunk entry costs are zero (at an extreme), then HARE is always profitable: \( P = AC \) and \( \pi = 0 \), even with only one incumbent.

More usually, the HAREntrant prospers so long as it can set a price high enough, and for long enough, to recover its sunk entry costs.

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In most markets, incumbents can adjust prices rapidly when entry threatens, so contestability is limited.
How can an incumbent monopolist deter entrants?

1. *Limit pricing* (charging a low price before entry)
2. *Predatory pricing* (charging a low price to drive others out of business)
3. *Excess capacity* (shaping entrants’ expectations of post-entry competition)
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6. Limit Pricing

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The would-be entrant observes the low price set by the incumbent, infers that the post-entry price would be at least as low, and walks away. — or at least that’s what the incumbent wants.
Case: Limit Pricing by Xerox
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By 1978, others were using its technology; Xerox share of new copiers down to 40%, and prices/page down 30%, but Xerox still very profitable: which implies substantial profits even when limit pricing.
Non-Credible Threats

Entrant E’s expectations about Incumbent N’s post-entry pricing are irrational: \((P_L < P_C < P_M)\)
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\[
\begin{align*}
N: & \quad $10.25 \quad $12.25 \\
E: & \quad -$1.50 \quad 50¢
\end{align*}
\]

\[
\begin{align*}
N: & \quad $4 \quad $6 \\
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The incumbent’s threat to price $P_L$ even after Entry is *non-credible*. 
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Or two types of uncertainty for the entrant:

1. about the incumbent’s objectives (see Predatory Pricing below);

2. about the incumbent’s costs or the level of market demand.

Then the post-entry price forecasts can be influenced by the incumbent’s pricing strategy.
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Limit pricing may enable the incumbent to influence the entrant’s estimate of its costs, and so the entrant’s expectations of post-entry profitability.
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But Folger’s share grew to 15% after a year.
GF adopted its “defend now” strategy to limit Folger’s to 10% in the East:

- heavy price discounting, “but $P \geq AVC$” (∴ not predatory)
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Clearly, GF wanted to signal to P&G its aggressive defence.
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“Maxwell House did not come dangerously close to gaining monopoly power as a result of any of its challenged conduct in any of the alleged markets. [my emphasis] As a result, its actions were output-enhancing and pro-competitive — the kind of conduct the antitrust laws seek to promote.”
8. Excess Capacity

Firms hold more capacity than they use for several reasons:
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Holding excess capacity may signal the incumbent’s willingness to slash prices if entry occurs.

Indeed, this signal, if effective, may mean that prices are never cut, and so the risk of antitrust action in response to limit or predatory pricing never occurs.
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The incumbent’s excess capacity can affect the entrant’s forecasts of post-entry competition, which depend on each firm’s costs and capabilities.
9. Exit-Promoting Strategies
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Case: How Standard Oil Drove Out its Competitors
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Case: How Standard Oil Drove Out its Competitors

John D. Rockefeller’s Standard Oil grew by exploiting scale and scope economies in refining, distribution, and purchasing; careful organisation of the vertical chain; and a series of shrewd steps to destroy rivals.
“Drawbacks” meant that S.O. (Esso!) was paid a fee by the rails for every barrel of oil sent to NY by a rival: subsidised by its rivals.
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S.O. had near *monopsony* power (single buyer’s power) in oil refining and distribution.

S.O. came to dominate refining by predatory pricing: by cutting prices until a recalcitrant refiner was driven from business. S.O. finally owned 90% of U.S. refining, and then squeezed profits out of the vertical chain.
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A successful predation strategy can be extremely costly.
Wars of Attrition
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If long and bloody enough, it may be only a pyrrhic victory for the survivor.
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∴ A role for signalling its capacity for endurance to its rivals: via lower costs, greater earnings, or commitment to winning. To encourage their early exit.
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Exit barriers will enhance a firm’s position in a war of attrition: committed to paying for inputs, compared to firms who can adjust their input costs.
Vertical Restrictions
**Vertical Restrictions**

These are business practices that sometimes exist between suppliers and dealers, or between manufacturers and retailers, that can be viewed as forms of vertical integration: they accomplish some of its outcomes by contractual means, not complete merging.
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Resale price maintenance (RPM): usually when a wholesaler requires that its retailers do not sell its products at less than a specified retail price. Lest no supply.

RPM is a partial substitute for vertical integration. RPM is either a minimum or maximum resale price.
If the supplier and the dealer both have market power, then the ability of the supplier to limit the dealer’s price will increase its profitability.
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RPM might be used to foster a cartel of dealers or suppliers, but only for a product that didn’t face substantial inter-brand competition.
II. Tying
11. Tying

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Exemplified by de Beer’s offering boxes of assorted raw diamonds to diamond cutters on a take-it-or-never-deal-with-us-again basis.

Two types:

1. variable proportions and
2. fixed proportions.
Variable proportions: salt to salt dispensers, ink to duplicating machines, cans to can-closing machines, staples to stapling machines, ink cartridges to SOHO printers, games cartridges to consoles:
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— the customer owns the “machine” and is tied to a source of input, demand for which will vary with the customer’s intensity of use of the machine.
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Fixed proportions: de Beers’ diamonds, movie distributor’s block booking of bundles of movies.
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Fixed proportions: de Beers’ diamonds, movie distributor’s block booking of bundles of movies.

Economists generally agreed that tying is a way of extracting higher profits through price discrimination. But courts have seen tying as a device for extending monopoly over the machine to its inputs.
12. Monopoly Resources and Regulation

A key resource, such as a single seller of bore water in a town, or mining a unique mineral.

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For historical reasons, different uses in Melbourne (residential) and Sydney (industrial). Different price elasticities? in the short and the long run?
Government-Created Monopolies

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Examples?

Spectrum rights (auctioned)
Bridges, tunnels
Natural Monopolies

Cable TV: high FC, the cable. Other reticulation networks, as service (more households) grows, the FC are shared by many more users, so there are economies of scale, falling AC (or IRTS).

Demand occurs with falling AC: cheaper for a single supplier than for two or more. e.g. ?
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Examples?

Less concerned about new entrants. Why?

e.g. rail lines in the Pilbara — iron ore exports, rival suppliers
Private Property or Public Asset?

Australia favours courts to determine when private property is to be “shared” (or “declared”) in order to facilitate new entrants and so increased competition.
Private Property or Public Asset?

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Case: Fortescue tries to get access to the Pilbara railways of Rio Tinto and BHP-Billiton.  
http://www.railways.pilbara.net.au/
IRON ORE MINING AND PORTS

- Iron ore mine
- Port
- Rail_major

Mines and ports:

[Map showing locations such as Dampier, Port Hedland, Tom Price, Newman, Kalgoorlie, Perth, and Esperance]
The Moral

You’re gouging on your prices if
You charge more than the rest.
But it’s unfair competition if
You think you can charge less.
A second point that we would make
To help avoid confusion:
Don’t try to charge the same amount—
Since that would be collusion!
You must compete. But not too much,
For if you did, you see,
The total market would be yours,
And that’s monopolee!

— R. W. Grant, Tom Smith and his Incredible Bread Machine,
Competitive Enterprise Institute, 1964.