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.***
R.C.:	***Oh, bullshit, Howard. We can talk about any goddamn thing we want to talk about.***

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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)

Today's Topics: Competition Policy

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In the EU, the European Commission DG Competition is the equivalent regulator.
(See *Oceans Apart*, from *The Economist*.)

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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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4. **“declaring” some facilities as *essential*, which allows other parties access to them, under certain conditions (telephone lines, cable networks, railways) (see below).**

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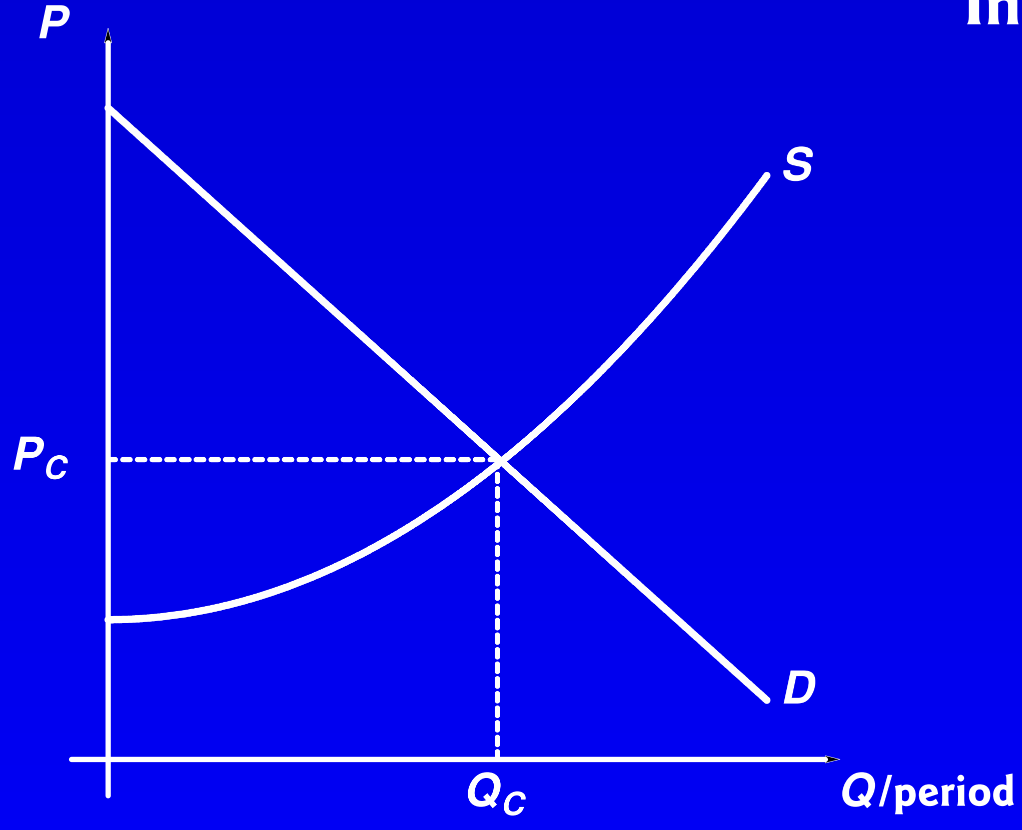
Colluding: **forming cartels to support price or restrict output.**

In this lecture, we discuss:

1. Monopolies (pp. 347–353)
2. Merger Analysis (pp. 352–3)
3. Measuring Market Structure
4. Linking Market Structure & Competition.
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

1. The Dead Weight Loss DWL of Monopolies

Inefficiencies.



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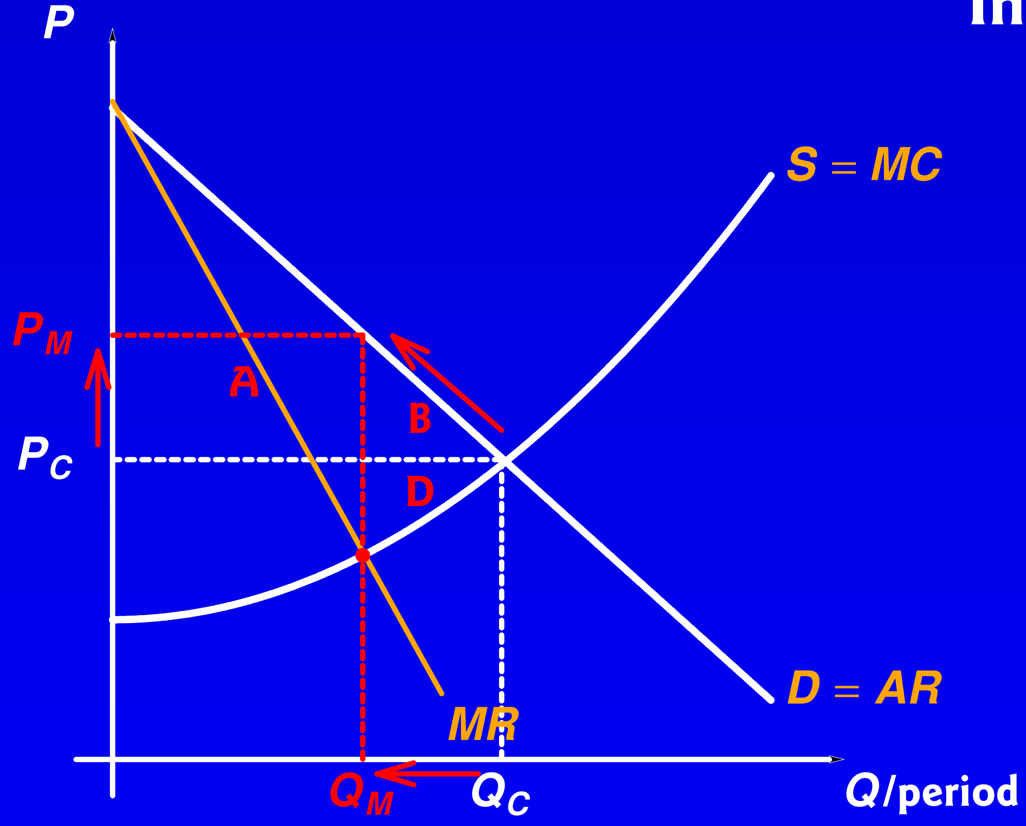

Fall in Consumers Surplus = areas A + B.
Rise in Producers Surplus = areas A − D.
(Profit π = Producers Surplus − Fixed Costs.)

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To what extent do the dynamic incentives of patents and copyrights mitigate these two reasons?

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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.
"Proper market analysis directs attention to the nature of the products that the acquirer and the acquired company principally sell, the channels of distribution ..., the outlets they employ to distribute their products to the ultimate consumer, and the geographic areas they mutually serve."

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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.

obsolete ASIC code	Industry	Percentage of turnover accounted for by: Largest four	Largest eight	Largest twenty	Total number of firms
2190	Tobacco products	100	100	100	3
2163	Biscuits	95	99	100	23
2945	Steel pipes & tubes	92	95	99	37
2770	Petroleum refining	85	100	100	8
3231	Motor vehicles	84	95	100	32
2751	Chemical fertilisers	81	98	100	19
2454	Foundation garments	73	97	100	12
2642	Printing & publishing	71	81	92	183
346	Rubber products	69	77	86	158
2872	Ready mixed concrete	69	75	83	178
2122	Butter	58	84	100	19
2765	Soap & other detergents	48	60	81	114
3353	Refrigerators & household appliances	46	61	80	167
3482	Jewellery & silverware	15	25	43	198
2644	Printing & bookbinding	14	21	33	1506

Selected Australian Industries 1982–83
Caves et al., *Australian Industry*, 1987.

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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The H.I. of a market with N equal-sized firms is $\frac{1}{N}$.

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Previously discussed models of price determination:

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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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1. **a Dead-Weight Loss (DWL)**
2. **operating with $AC >$ min AC and $Q < Q_{MES}$.**

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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Monopoly	0.7 and above	Usually light, unless threatened by entry.

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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 HAREntrant rapidly enters the market, undercuts the price, reaps short-term profits, and exits just as the incumbent retaliates.

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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?

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2. *Predatory pricing* (charging a low price to drive others out of business)
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Xerox' monopoly price about 10¢/page, > AC of electrofax.

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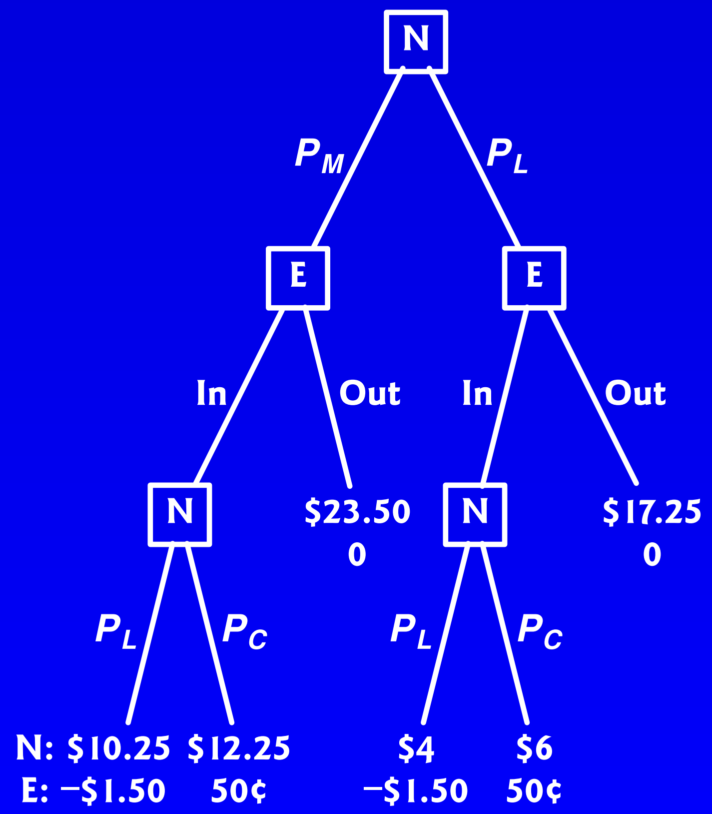
By 1978, others were using its technology; Xerox share of new copiers down to 40%, and prices/page down 30%, but Xerox still very profitable: which implies substantial profits even when limit pricing.

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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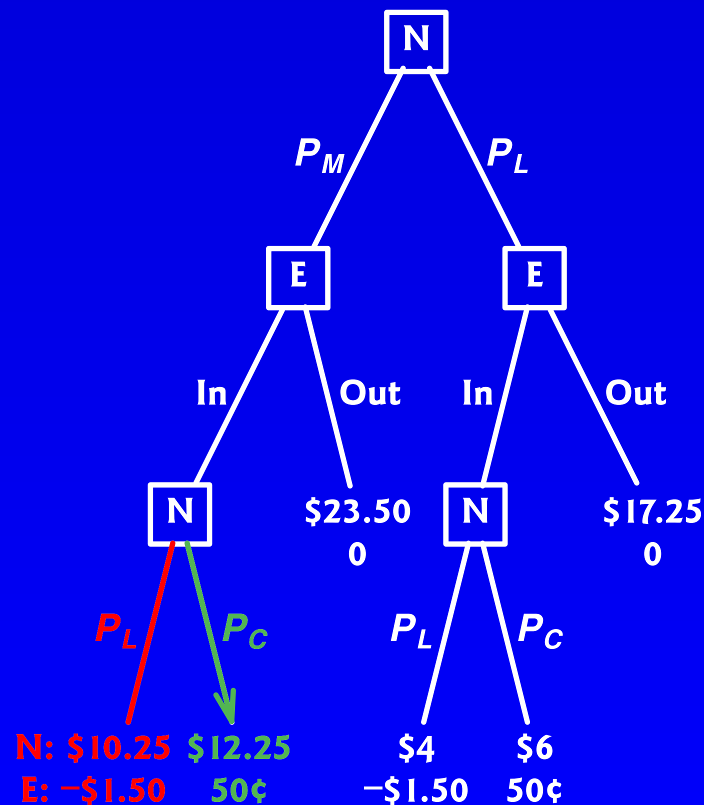

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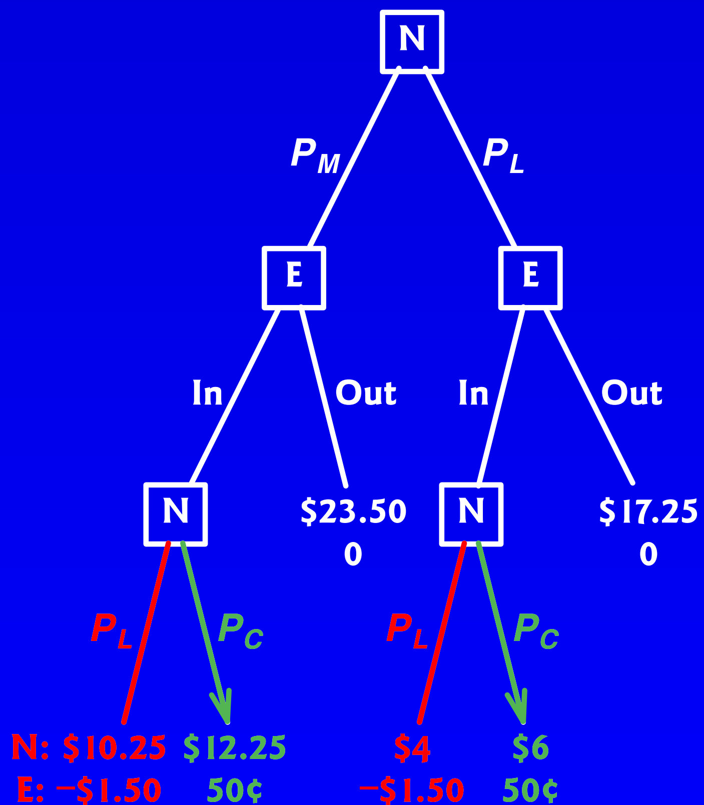

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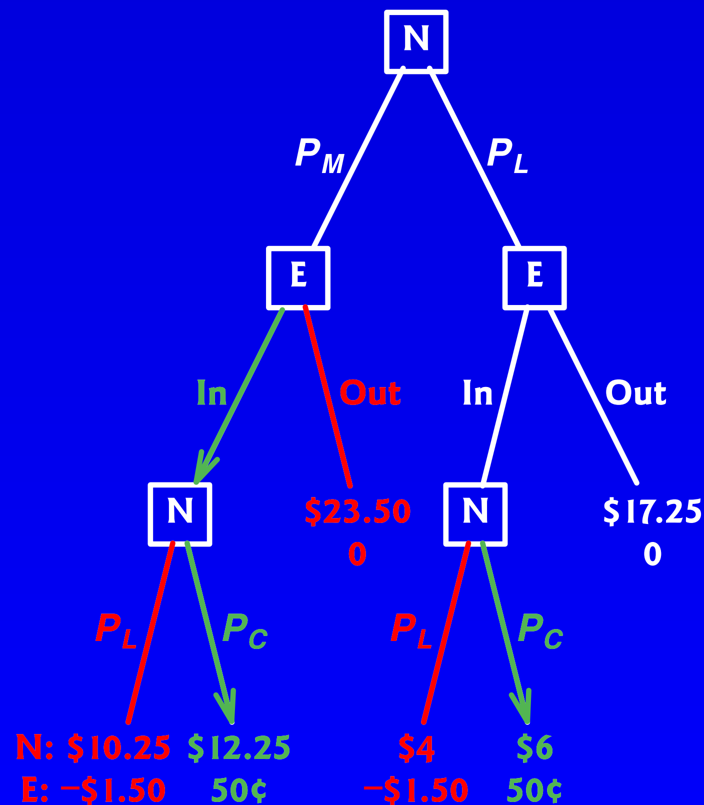

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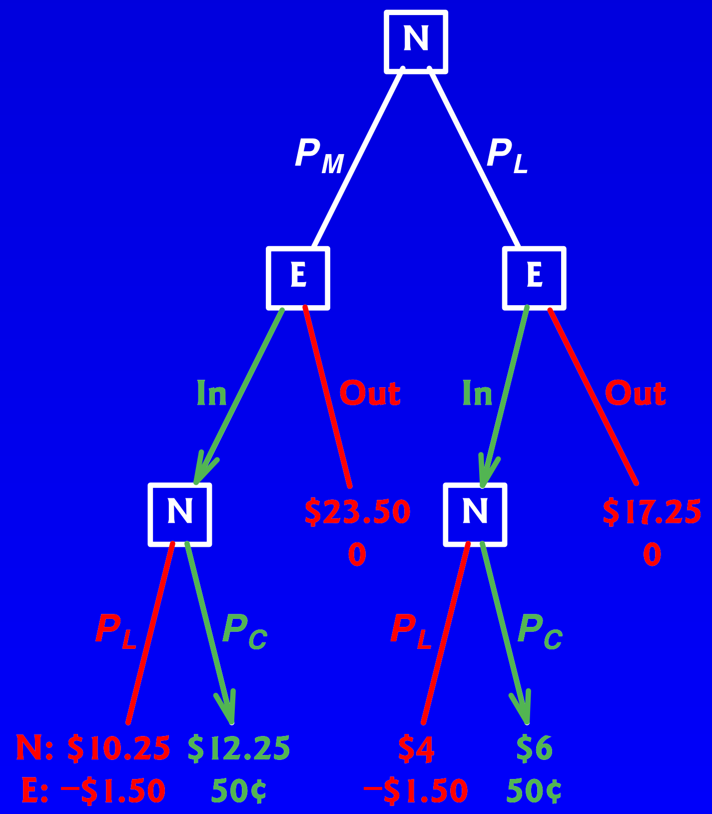

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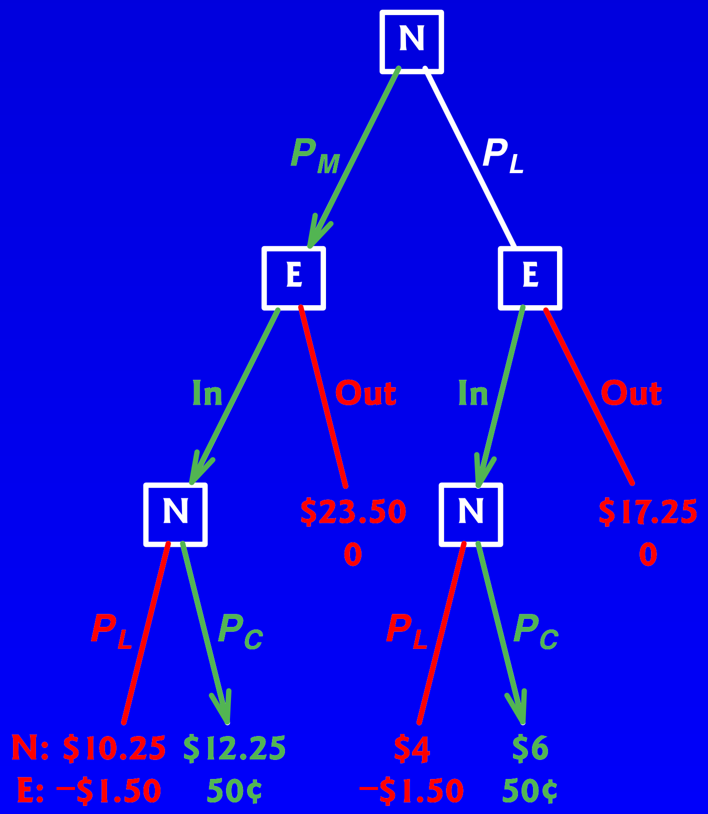

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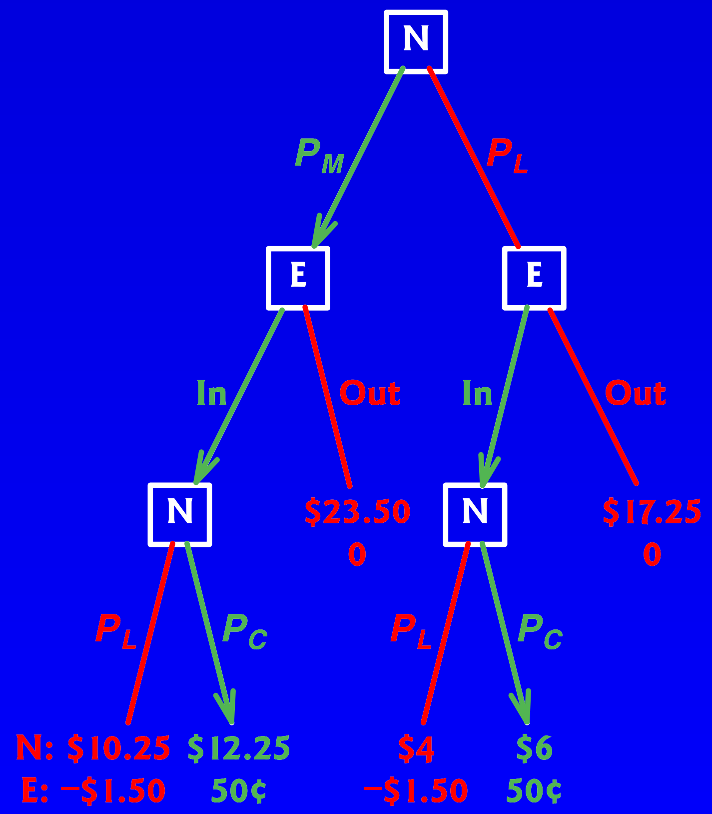

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The incumbent's threat to price P_L even after Entry is *non-credible*.

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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:

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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.”**

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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.

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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.

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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.

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If long and bloody enough, it may be only a pyrrhic victory for the survivor.

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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

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RPM is a partial substitute for vertical integration.
RPM is either a minimum or maximum resale price.

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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.

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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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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

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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?

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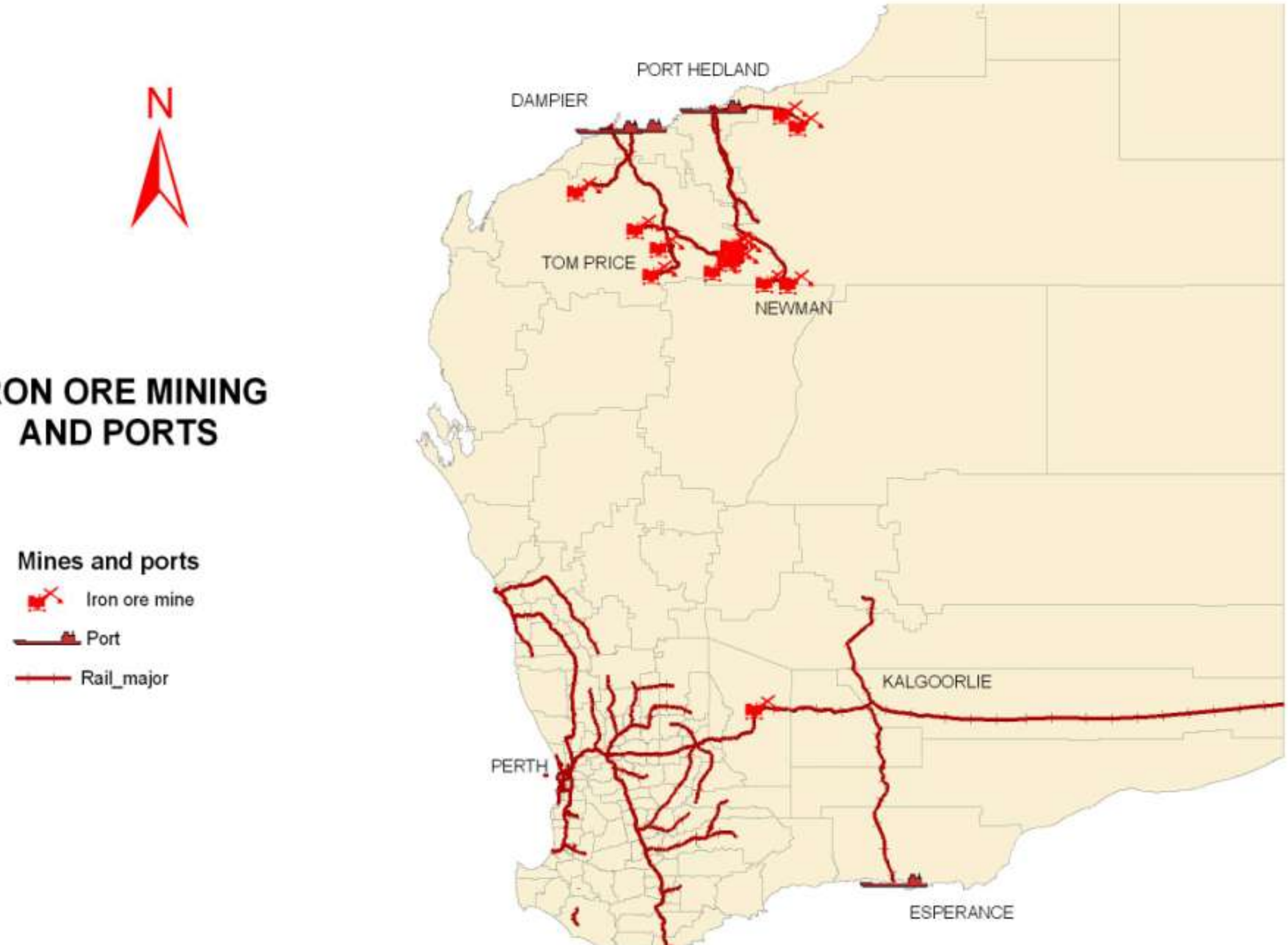
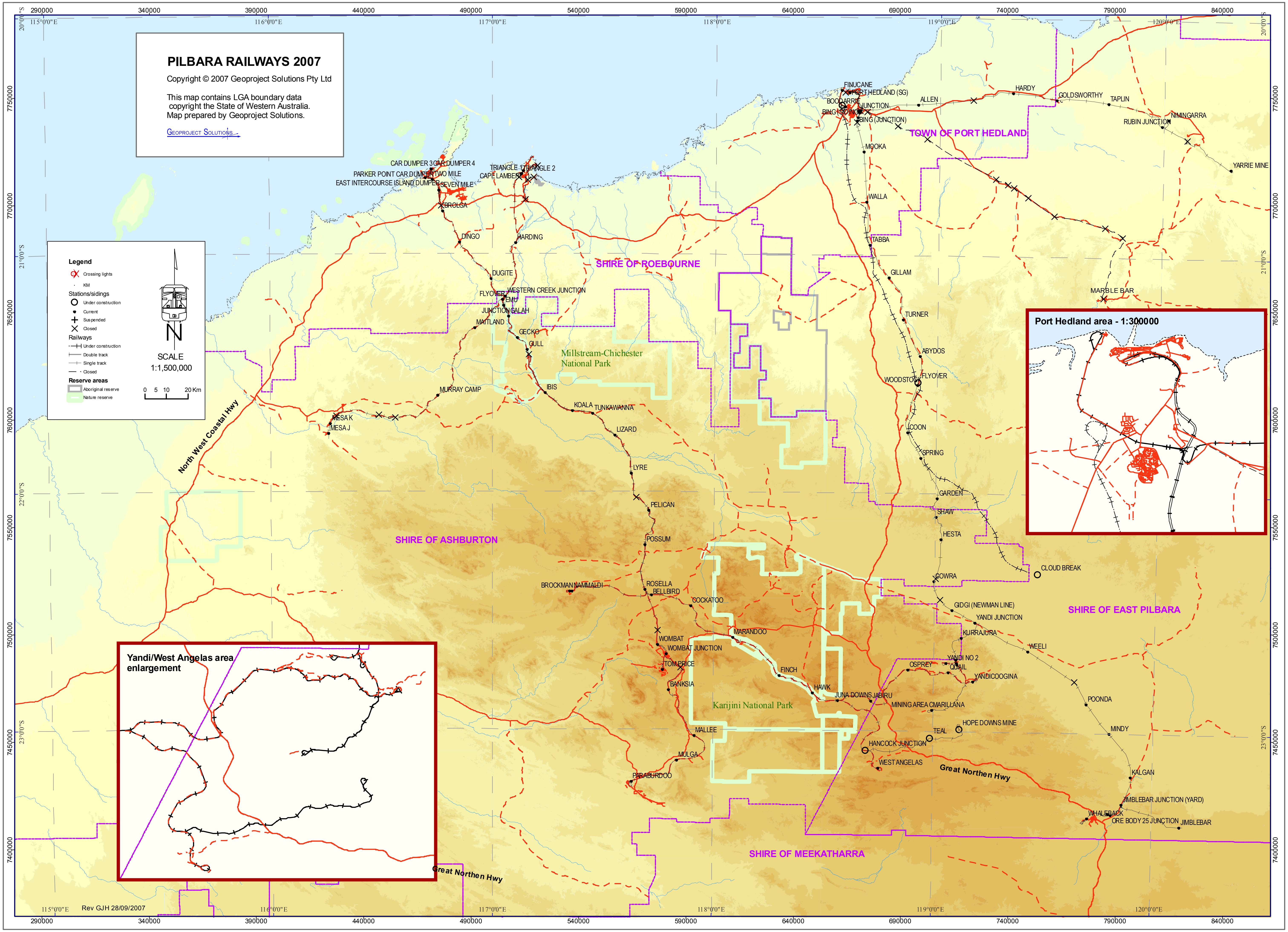
Case: Fortesque tries to get access to the Pilbara railways of Rio Tinto and BHP-Billiton.
http://www.railways.pilbara.net.au/

IRON ORE MINING AND PORTS




PILBARA RAILWAYS 2007
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Legend
Crossing lights
KM
Stations/sidings
Under construction
Current
Suspended
Closed
Railways
Under construction
Double track
Single track
Closed
Reserve areas
Aboriginal reserve
Nature reserve
N
SCALE
1:1,500,000
0 5 10 20 Km
Port Hedland area - 1:300000
Yandi/West Angelas area enlargement
TOWN OF PORT HEDLAND
SHIRE OF ROEBOURNE
SHIRE OF ASHBURTON
SHIRE OF EAST PILBARA
SHIRE OF MEEKATHARRA
Millstream-Chichester National Park
Karijini National Park
North West Coastal Hwy
Great Northen Hwy
FINUCANE
PORT HEDLAND (SG)
BOODARRIE
JUNCTION
BING (SIDING)
BING (JUNCTION)
ALLEN
HARDY
GOLDSWORTHY
TAPLIN
NIMINGARRA
RUBIN JUNCTION
YARRIE MINE
MOOKA
WALLA
TABBA
GILLAM
TURNER
ABYDOS
WOODSTOCK
FLYOVER
COON
SPRING
GARDEN
SHAW
HESTA
COWRA
CLOUD BREAK
MARBLE BAR
GIDGI (NEWMAN LINE)
YANDI JUNCTION
KURRAJURA
WEELI
YANDI NO 2
OSPREY
QUAIL
YANDICOOGINA
POONDA
MINDY
KALGAN
JIMBLEBAR JUNCTION (YARD)
WHALEBACK
ORE BODY 25 JUNCTION
JIMBLEBAR
JUNA DOWNS
JABIRU
MINING AREA C
MARILLANA
HOPE DOWNS MINE
TEAL
HANCOCK JUNCTION
WEST ANGELAS
CAR DUMPER 3
CAR DUMPER 4
PARKER POINT CAR DUMPER
TWO MILE
EAST INTERCOURSE ISLAND DUMPER
SEVEN MILE
TRIANGLE 1
TRIANGLE 2
CAPE LAMBERT
BROLGA
DINGO
HARDING
DUGITE
FLYOVER
WESTERN CREEK JUNCTION
EMU
JUNCTION
GALAH
MAITLAND
GECKO
GULL
MURRAY CAMP
IBIS
KOALA
TUNKAWANNA
LIZARD
LYRE
PELICAN
POSSUM
MESA K
MESA J
BROCKMAN
NAMMALDI
ROSELLA
BELLBIRD
COCKATOO
MARANDOO
WOMBAT
WOMBAT JUNCTION
TOM PRICE
BANKSIA
FINCH
HAWK
MALLEE
MULGA
PARABURDOO
Rev GJH 28/09/2007

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.