Book Review

Competition Ltd.: The Marketing of Gasoline. By Fred C. Allvine and
James M. Patterson. *Bloomington, London: Indiana University Press.*
1972. Pp. xviii, 326. $11.00.

Reviewed by C. David Anderson[†]

Response to effective competition is not always limited to the mar-
ketplace. In the 1930's, as related by Joseph Palamountain, the United
States Wholesale Grocers Association journeyed to Congress to smite
the blackguard A & P, declare fervent support for fair competition,
and, in the process, promote a bill which it hoped would stop the chain
stores from offering such low prices.[1] The economic arguments for
this position were often simplistic,[2] but their political appeal was un-
deniable. Although economists now conclude that A & P,[3] and perhaps
even the Standard Oil Trust before it,[4] were not guilty of the alleged
predatory behavior which fueled the legislative fires, we are left with
the Robinson-Patman Act, resale price maintenance laws, and other
legislative attempts to preserve competitors rather than competition.[5]

With the increasing use of economic analysis by legislators and law-
yers, it might be expected that current arguments for preserving com-
petitors would rely on theories more sophisticated than that the big
corporations are big. This expectation is fulfilled in *Competition,
Ltd.*:[6] It appears that the analysis which gave us the Robinson-Patman
Act can now be fashionably embellished with numbers and tables and
brought back into service.

Professors Allvine and Patterson conclude that vertical integration
in the oil industry has "become a malignant force for harnessing

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Control, 1969-70.
1. J. PALAMOUNTAIN, THE POLITICS OF DISTRIBUTION 195-215 (1955).
2. Palamountain characterizes one of Representative Wright Patman's popular argu-
ments as "absurd" on the facts. *Id.* at 214-15.
3. *See* M. ADELMAN, A & P: A STUDY IN PRICE-COST BEHAVIOR AND PUBLIC POLICY (1959).
4. *See* McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case,* J. LAW & ECON.
137 (1958).
5. For a summary statement of the relevant economic arguments, see F. SCHERER, IN-
DUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 496-505, 513-15 (1970).
6. F. ALLVINE & J. PATTERSON, COMPETITION LTD.: THE MARKETING OF GASOLINE (1972)
[hereinafter cited to page number only].

monopoly power."[7] They therefore argue that laws must be enacted
to guarantee the viability of independent gasoline marketers, in order
for true price competition to survive. To this end, they recommend
prohibiting vertical integration, so that no one company could com-
bine crude oil production with either refining or marketing.[8] Calls
for disintegration of the oil industry have, of course, been made[9] and
disposed of before,[10] but Allvine and Patterson are unusual in that
they offer testable evidence to support their proposals. But even with
this evidence, their argument should persuade few outside the So-
ciety of Independent Gasoline Marketers, which financed the book.

Review of the authors' attack on vertical integration is, however,
useful demonstration of the ease with which the economics of a com-
plex industry can be plausibly misrepresented. Their main line of ar-
gument is as follows: The large vertically integrated oil companies
("the majors") have traditionally dominated the industry in oligopo-
listic fashion,[11] and retain their dominance by using monopoly profits
from crude oil production to finance practices which eliminate inde-
pendent marketers. They have a non-price marketing style which em-
phasizes high prices, convenient stations, and brand loyalty. In short,
the majors compete with frills and stamps, because, like other oligopo-
lies, they are better able to fix prices than to control non-price com-
petition.[12]

Meanwhile, the independent marketers compete in price, like proper
competitors, and constantly threaten to reduce the majors' market
share. The independents sell essentially the same gasoline at two to
five cents a gallon below the majors' price.[13] The independents can
do this because their costs are lower: Their competitive price market-
ing style leads to higher volume per station; they "waste" less on
superfluous services and advertising.[14]

Thus, the independent marketers are seen as the competitive force
which, if only given a fair chance, will defeat the majors' oligopolistic
schemes. The majors, however, recognizing the danger, employ a va-
riety of unfair tactics to contain the independents and preserve their

7. P. 241.
8. Pp. 277-80.
9. See, e.g., E.V. ROSTOW, A NATIONAL POLICY FOR THE OIL INDUSTRY 123 et seq. (1948).
10. Bork, Vertical Integration and the Sherman Act: The Legal History of an Eco-
nomic Misconception, 22 U. CHI. L. REV. 157, 197 n.130 (1954).
11. Pp. 10-11.
12. Pp. 11-21.
13. Pp. 83-84.
14. Pp. 101-02.

profitable oligopoly.[15] While Allvine and Patterson would outlaw these "unfair" devices, the main thrust of their argument is elimination of vertical integration which permits profit transfer by these methods.[16]

During the 50's the market trend was not inconsistent with this thesis of price competition, as the independents' share of some markets rose to over thirty percent by 1960.[17] Thus Allvine and Patterson argue that the majors' high prices allowed the independents to increase their market share by undercutting the majors' oligopolistic price structure. After 1960, the argument continues, the majors' market share had declined sufficiently to stimulate unfair efforts against the independents.[18] Allvine and Patterson devote more than a third of their book to the details of these various devices.[19] The element common to most of these "unfair" tactics is price reduction, either directly, as in the "tane" and "one cent differential" price wars, or indirectly, as with the trading stamps and games which flourished in the period. These price reductions lasted for years and had the desired effect of reducing the independents' market share through the mid-60's.[20]

According to Allvine and Patterson, the vertically integrated majors can run their refining and marketing operations at a loss—and thus undercut the independents' prices—because they subsidize their downstream operations with "state abetted quasi monopoly"[21] profits earned on crude oil. Independent marketers, and the independent refiners who supply them, neither of whom can rely on crude oil profits, are seen as at a hopeless disadvantage. The resulting price wars may produce short-term consumer benefits, but once the independents are exhausted, the majors will take advantage of their oligopolistic market structure and increase prices far above the competitive level.

15. *See* pp. 114-40 (price wars), 143-78 ("tane wars"), 179-99 (price protection), 200-10 (buying out competitors).
16. Pp. 275-76.
17. Pp. 109-10, 113, 144.
18. For example, Gulf initiated the "tane wars" by introducing Gulftane, which has a slightly lower octane rating than regular gasoline yet is usable in many cars. This new grade could be priced with independent regular—two cents below major brand regular—without upsetting Gulf's other prices. Shell was fond of a somewhat more costly device, the "one cent differential" wars, where Shell's regular would be priced one cent higher than independent regular. Consumers will switch to branded gasoline if it is only a penny a gallon higher, so the independents would cut their price, Shell would follow, and so on. Pp. 121, 143-78. There is, however, an alternative and less sinister explanation for the early-60's price wars—the existence of excess refining capacity at that time. *See* statement of W.R. Pierson, American Oil Co. Vice-President in *Marketing Practices in the Gasoline Industry, Hearings Before Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary*, 91st Cong., 1st Sess., pt. 1, at 155 (1969); F. SCHERER, *supra* note 5, at 197-98.
19. Pp. 9-41, 114-210.
20. Pp. 131-34.
21. P. 269.

To establish the major premise of this argument, Allvine and Pat-
terson argue that crude oil prices are kept artificially high by a com-
bination of federal import quotas and the market demand prorationing
systems practiced by Texas and Louisiana.[22] They contend that this
monopoly price for crude oil yields monopoly profits, which are in
turn used to finance the price-cutting effort downstream. To prove
this improbable proposition, the authors first present a table indi-
cating that independent crude producers have a much higher return
on book assets—about sixteen percent—than do integrated companies
—about twelve percent.[23] They contend that this is because the mo-
nopoly profits earned by the independent producers are not reduced
by subsidies to downstream operations. Allvine and Patterson then
present a table which indicates that the average industry profit on
refining has declined so much that refinery operations have generally
operated at a loss for every year since 1952.[24] They argue that this
demonstrates that integrated companies are subsidizing their refinery
operations.

Finally, Allvine and Patterson contend that integrated companies
can gain still another unfair advantage from their ownership of crude
production, in that they can artificially increase the price at which
they transfer their own crude oil to their refinery divisions.[25] This,
they argue, results because oil producers gain a tax benefit from de-
pletion allowances (calculated as a percentage of the wellhead price
of crude) but incur no financial cost since the profit from the excess
price (inflated to increase the depletion allowance) stays within the
company.

Since Allvine and Patterson see the majors' principal advantage as
their ability to shift profits between crude oil production and down-
stream activities, the obvious solution is to sever the industry at the
crude oil-refining link. The authors do suggest other aids in preserv-
ing the independents—including forcing integrated refiners to sell a
fixed percentage of their gasoline to independents, or requiring a com-
pany's prices to be uniform throughout its territory—but these are
subordinate to the cure-all of eliminating vertical integration.

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22. Pp. 244-52.
Market demand prorationing is the procedure by which state oil-regulatory agencies
restrict the quantity of oil produced during a month to approximately the amount
demanded by crude-oil purchasers at the prevailing price.
Id. at 244.
23. Pp. 220-22.
24. P. 224.
25. Pp. 257-58.

While the Allvine and Patterson position has a certain appeal,[26] on closer inspection a number of theoretical flaws appear. For example, they offer no explanation of why a company which has already captured the available monopoly profits at the crude oil level would benefit by using these profits to obtain a monopoly at the refining and distribution levels. Nor do they explain why competition between the majors themselves—and there are at least twenty of them[27]—has not dissipated the alleged excessive profits in crude production.

Their argument is more directly exposed by concentrating on their evidence that a crude monopoly profit exists and is used as a downstream subsidy. First, consider the structure of the industry. One can agree with Allvine and Patterson that federal import restrictions and state prorationing have combined to maintain domestic crude oil prices above the competitive level.[28] But although such regulation has been generally effective in preventing competitive pressure from lowering prices for crude, there is no system to prevent competition from raising the price of oil properties. Subsidies like the depletion allowance should therefore be expected to disappear into higher bonus payments, state taxes, and the costs of drilling marginal prospects.[29]

Although the prevailing price is thus in a very loose sense a "monopoly price" maintained by government regulation, airline executives will testify that it is a surprisingly long way from monopoly prices to monopoly profits when there are even a few effective competitors.[30] And there are thousands of domestic crude producers, no one of which

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26. Perhaps especially to a reader who is acquainted with the industry. The majors are huge—seven of the twenty largest United States corporations. *The Fortune Directory of the 500 Largest Industrial Corporations,* FORTUNE, May, 1972, at 188, 190. And there are respectable arguments suggesting that independents have been a major source of competitive pricing in the industry, especially in the world crude market where prices have been enormously above cost. *See, e.g.,* M.A. ADELMAN, THE WORLD PETROLEUM MARKET 100, 196-204 (1972) (international market); Mancke, *The Allocation of U.S. Oil Import Quotas,* 6 J. WORLD TRADE L. 565, 571 (1972) (domestic market). One might ·therefore suspect that the majors would dearly love to do away with their smaller brethren, and that they would stoop to "unfair" tactics which seem likely to accomplish this without cost.

27. P. 212.

28. *See, e.g.,* CABINET TASK FORCE ON OIL IMPORT CONTROL, THE OIL IMPORT QUESTION (1970); S.L. McDONALD, PETROLEUM CONSERVATION IN THE UNITED STATES 196 (1971).

29. The City of Long Beach, California, for example, is said to have once received bids for leases in a known field which exceeded the wellhead value of the oil involved. Even if apocryphal, the story illustrates how the benefits of a subsidy can end in the landowners' pockets under competitive conditions. Once oil companies have paid the bonuses—and they recently paid $1.67 billion for leases in the Gulf of Mexico—we should not be surprised that they defend the depletion allowances and import controls on which they based their investments. *See* OIL & GAS J., Dec. 25, 1972, at 37.

30. Keeler, *Airline Regulation and Market Performance,* 3 BELL J. OF ECON. & MANAGEMENT SCI. 399, 421-22 (1972).

dominates the field;[31] barriers to entry are minimal.[32] Thus, one would suspect that any unusual profits would have long since disappeared.

Such factors suggest a skeptical view of the evidence Allvine and Patterson provide. For example, the discrepancy they note between book profit margins of the integrated major (twelve percent) and independent crude producers (sixteen percent) can be explained as the result of accounting conventions: The established practice in the industry is to consider the costs of unsuccessful wells as a current expense, though in an economic sense such costs are capital costs of successful wells.[33] This convention has the effect, in the long run, of understating book assets without similarly affecting book income. The apparent rate of return is therefore overstated.

To illustrate: Assume an oil company made two separate $1 million investments last year, both calculated to yield a twelve percent return, or $120,000. One investment was in a small refinery, with a current book value (ignoring depreciation) of $1 million. The other was in drilling two $500,000 wells on the edge of a known field, one of which came in and now earns $120,000 per year. The book value of the drilling investment (again ignoring depreciation) is $500,000, since the cost of the unsuccessful well was expensed rather than capitalized. Although the economic rate of return on both investments is the same, twelve percent, the book rate of return on the development well investment will be shown as twenty-four percent.

More generally, if we assume a major and an independent crude producer are identical except that only one-half the major's investment is in crude, the independent's book profit percentage would be substantially above that of the major in the long run,[34] remarkably close

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31. P. 212. *See* McKie, *Market Structure and Uncertainty in Oil and Gas Exploration,* 74 Q.J. ECON. 543, 546 (1960).

32. McKIE, *supra* note 31, at 569-70.

33. R. WIXON, W. KELL & N. BEDFORD, ACCOUNTANT'S HANDBOOK 15-7 through 15-9 (5th ed. 1970). Newer and smaller oil producers frequently use the "total cost" method of accounting, in which costs of unsuccessful wells are capitalized. *See, e.g.,* Wall St. J., Apr. 5, 1973, at 9, col. 1. However, the sixty-one independent producers whose incomes are examined had average book net assets in excess of $35 million in 1968, the last year of the series. P. 220.

34. Assume that both companies invest $2 million on the first day of each year, with a fourteen percent gross rate of return after variable expenses, and that all investments have a ten year life. The "major" makes half its investment in refinery assets and half in drilling oil wells, while the independent invests everything in new oil wells. Half the wells are successful, and only costs of successful wells are capitalized. The situation of

to the twelve to sixteen ratio on which the authors base their complaint of monopoly profits. Thus, it seems eminently arguable that the majors' apparently lower rate of return is attributable to the large proportion of their investment in refining and marketing assets (on the books at full value), rather than to any "passing on" of monopoly profits to downstream operations.[35]

The authors' second piece of evidence is their table of refinery profitability.[36] In text discussing this table, Allvine and Patterson note that it indicates that refineries have lost money every year since 1953, and that in 1969 that loss equalled an astounding $.557 per barrel.

The footnote to this table concedes, however, that the table cannot represent *actual* refinery profit margins but only their *trend,* since changes in refinery yield and the cost of transportation had not been considered. In fact, the footnote should have been even more cautious. For example, about thirteen percent of the price series, which runs from 1935 to 1970, is based on the East Coast price of residual oil. The authors do not mention, however, that restrictions on imports of residual oil to the East Coast were lifted in 1966, and that since that time, the price of East Coast residual oil has been determined by the lower cost foreign crude from which it is produced.[37] Similarly, it appears that the very high value of import quota tickets received by refiners since 1959[38] has not been offset against refinery costs. Finally, since Allvine and Patterson report only "average" per barrel refinery costs, we are left to speculate whether the average is weighted to account for the

the two companies after one year and after ten or more years is as follows (all figures in millions):

	Major		Independent Producer	
	Yr. 1	Yr. 10	Yr. 1	Yr. 10
Gross Investment	2.00	20.0	2.0	20.0
Cumulative Depreciation	.15	8.20	0.10	5.50
Book Equity	1.35	6.80	0.90	4.50
Gross Income	.28	2.80	0.280	2.80
Depreciation	.15	1.50	0.10	1.00
Well Cost Expenses	.50	0.50	1.0	1.00
Net Income	(0.37)	0.80	(0.82)	0.80
Percent Return on Equity	—27%	+11.8%	—91%	+17.8%

35. Indeed, the tendency of this accounting treatment to distort the rate of return evidently underlies the SEC's recent move to require those oil companies which do capitalize the costs of unsuccessful wells to report the effect that expensing these items would have. SEC Securities Act Rel. No. 5343 (Dec. 18, 1972), [1972-1973 Transfer Binder] CCH FED. SEC. LAW RPTR. ¶ 79,143 (1972); Wall St. J., Dec. 19, 1972, at 2, col. 2; BUSINESS WEEK, Jan. 6, 1973, at 58.

36. P. 224. The table derives a profit figure by subtracting average refinery costs and average crude oil prices from average product prices.

37. CABINET TASK FORCE ON OIL IMPORT CONTROL, *supra* note 28, at ¶ 121d, p. 11.

38. *Id.* at ¶¶ 107, 123, 127.

higher output of the more efficient large refineries, or whether it is
merely a simple average, which thus over-represents the small, higher
cost refineries. Thus, the table is hardly a reliable guide to either
the size or trend of refinery profits.[39]   •

The argument that integrated companies manipulate crude prices
so as to achieve large depletion allowances is also flawed. The major
obstacle to such manipulation is that the approximate market value
of crude oil is easy to derive, once its physical qualities and location
are known.[40] Therefore, in order to inflate the price of his own crude
convincingly, the integrated major would have to "pay," at a minimum,
the inflated price both for his own oil and for oil purchased from
others. Moreover, the depletion allowance increases by only 22 percent
of the inflated price while *all* of the increase paid to outsiders is lost.[41]
Since most of the majors buy considerable amounts of crude from
competitors,[42] it seems reasonable to conclude that inflating crude
prices to achieve a higher depletion allowance is not a strategy of
major significance.

We are left, then, without any objective evidence of the book's
central arguments, that the majors' vertical integration enables them
to capture unusual profits at the crude level and use them to subsidize
their refining and marketing operations. This book may be of use
to those in need of an anecdotal, illustrated (it has pictures of twelve
different gas stations) history of gasoline marketing, but judged as
economic analysis designed to influence legislation, it is biased and
sloppy, and ranks below even the industry's jejune efforts to justify
depletion allowances and market demand prorationing.

39. As to the actual level of profits, we can observe that independents have invested
new money in refineries in the last ten years, and that the investment community seems
to think that well-managed independents are likely to be increasingly profitable in the
near future. *See, e.g.,* OIL & GAS J., Feb. 1, 1965, at 45; BARRON'S, Jan. 8, 1973, at 5.

40. *See, e.g.,* M. A. ADELMAN, *supra* note 26, at 412-14, app. VI-H (1972).

41. Thus, a refiner who produces eighty percent of the oil he refines would gain
$17,600 in increased depletion allowance if he processes one million barrels of oil and
inflates the price by ten cents per barrel, but he would at the same time pay out $20,000
extra to his outside crude suppliers. This is a losing proposition even without consid-
ering the resulting increase in royalty costs and state severance taxes on the wellhead
value of crude—4.6 percent in Texas. 20A TEX. ANN. STAT. 122A, § 4.02 (Vernon 1969).

42. In 1958, only one of the twenty largest integrated companies had United States
crude production which exceeded seventy-two percent of the crude it refined in the
United States, and the average for the twenty majors was slightly below fifty-two per-
cent. Dirban, *The Petroleum Industry,* in THE STRUCTURE OF AMERICAN INDUSTRY 282
(3d ed. Adams ed. 1961). By 1968, the twenty largest integrated companies together pro-
duced only sixty-seven percent of their total domestic crude requirements. P. 213. Shell,
which Allvine and Patterson suggest has recently been the most aggressive in pricing,
produces less than sixty-five percent of its domestic crude requirements. Pp. 105-06, 213.