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Full Costing, Competition and Regulatory Practice

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A central issue in public utility regulation is the choice of an appropriate cost standard for the setting of rates in a competitive environment. In recent years, the debate within the federal regulatory agencies, the courts, and the Congress has focused on two alternative standards: incremental cost and fully distributed cost. This article examines the status of these cost criteria in the pronouncements and practices of three federal regulatory agencies. It will be argued that these agencies have recently turned away from the use of fully distributed cost in regulating competitive rates and have come to rely almost exclusively on measures that approximate incremental cost.

I. The Policy Choice

Incremental cost is the additional cost to the firm of supplying a particular service. It excludes costs directly attributable to the production of other services and certain unattributable costs which are incurred in common for all services supplied by the firm and do not vary with the level of output.¹ Fully distributed cost combines the additional cost to the firm of supplying a particular service with some proportion of the unattributable costs. Incremental cost or fully distributed cost are both only pricing floors; a rate based on either

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Professor Baumol has testified on the relevance of fully distributed cost in utility pricing in numerous proceedings. Mr. Walton is an Attorney for American Telephone and Telegraph. This analysis does not, however, necessarily represent the viewpoint of American Telephone and Telegraph.

¹ Sometimes these unattributable costs are called, with varying degrees of precision, "overhead costs," "fixed costs," "common costs" or "remaining costs."
would be at least equal to and often in excess of the particular cost. Agencies have used their own terminology to describe their approximations of these cost standards. As its version of incremental cost, the CAB has tended to use "added cost"; the ICC, on different occasions, "out-of-pocket cost" or "variable cost."\(^2\) Fully distributed cost is referred to as "fully allocated cost" or simply "cost."

To illustrate how these two measures are calculated, assume a firm plans to construct a plant, and three possibilities are under consideration: (1) a plant that could produce \(A\) alone for $7 million; (2) a plant that could produce \(B\) alone for $8 million; and (3) a plant that could produce \(A\) and \(B\) at a total cost of $12 million. Comparing plant (3) with plant (1) tells us that the incremental cost of producing \(B\) in addition to \(A\) is $5 million; by comparing plant (3) with plant (2), we see that the incremental cost of producing \(A\) in addition to \(B\) is $4 million. Because the two incremental cost figures total only $9 million instead of the $12 million cost of turning out the two products together as in plant (3), the incremental cost figures leave $3 million which is not directly attributable to either service. A fully distributed cost calculation would allocate the $3 million of unattributable costs between \(A\) and \(B\). The $3 million could be allocated on the basis of any of a variety of accounting conventions. For example, it could be allocated in proportion to the incremental costs of \(A\) and \(B\), making the fully distributed cost of \(A\) approximately $5.3 million and the fully distributed cost of \(B\) approximately $6.7 million. Another approach might be to allocate unattributable costs in proportion to the "relative usage" of the facilities by \(A\) and \(B\), though some convention would then be needed to define "relative usage." In railroading, for example, it has been calculated on the basis of the weight or volume or value of the different classes of traffic. Whichever allocation procedure is chosen, the choice will be an arbitrary one.\(^3\)

A. **The Argument for Fully Distributed Cost**

The advocates of fully distributed cost argue that that standard is essential to preserve effective competition. Without it, a firm could


sell below "cost" those services which are threatened by competition, covering the resulting deficits by subsidies obtained through high charges to the customers of its monopoly services. In this way the firm could undercut its competitors, eventually driving them out of business. A fully distributed cost standard, on the other hand, would require that the price of its competitive service cover some proportion of the firm's unattributable costs.

B. The Argument for Incremental Cost

The advocates of an incremental cost standard argue that a rate set on the basis of incremental cost would benefit not only the customers of B, the firm's competitive service, but also the customers of A, the firm's monopoly service. In an industry whose profits are limited by regulation, the production of any additional B whose incremental revenue exceeds its incremental cost must benefit the customers of A, because the net earnings of B can be used to reduce unattributable costs otherwise borne entirely by A. Returning to our numerical example, suppose the firm were regulated on a fully distributed cost standard and, as before, $1.7 million of the firm's unattributable costs were allocated to B, making B's fully distributed cost approximately $6.7 million. If potential customers of B were willing to pay no more than $6.2 million for it, then no B would be sold. Users of A would then shoulder the entire $3 million of unattributable costs alone and have to be supplied by the single purpose plant costing $7 million. But, if B's price were set at the competitive rate of $6.2 million, well above its incremental cost floor of $5 million, B's net earnings would reduce the $3 million of unattributable costs borne by A's customers by $1.2 million. Clearly, the customers of A are better off if B is sold at a competitive price below its fully distributed cost floor.

Advocates of incremental cost argue that such a cost standard would still provide a test for whether monopoly service A is subsidizing competitive service B and thereby permitting the firm to sell B at a price that undercuts its competitors. They contend that A is "subsidizing" B only if A's customers would be better off if B were not produced. So long as B's incremental revenue exceeds its incremental cost, however, B will be making a net contribution to reducing the firm's unattributable costs. Thus, if the supply of B results in a reduction in the outlays required by A's customers, A cannot be said to be subsidizing B.
Finally, advocates of incremental cost argue that incremental cost reflects the quantity of society's resources needed to supply B, while a fully distributed cost standard protects less efficient rivals who use up more of society's resources in supplying a product that is a substitute for B. For example, suppose Firm I can produce B at an incremental cost of $5 million but its fully distributed cost is calculated to be $6.7 million, while Firm II can produce a substitute for B at an incremental cost of $5.8 million and a fully distributed cost of $6.1 million. To utilize society's resources efficiently, Firm I should supply B even though Firm II has a lower fully distributed cost since Firm I needs only $5 million in additional resources from society to produce B while Firm II requires $5.8 million. Yet, if neither firm were allowed to price B below fully distributed cost, Firm II would end up producing some or all of B.\(^4\) The fully distributed cost standard would benefit Firm II, the inefficient competitor, and permit it to survive. The form of competition would be preserved, but it would yield a price distinctly above the level which competition would produce. An artificial price floor corresponding to Firm II's $6.1 million fully distributed cost figure would keep the price of B higher than that dictated by market conditions.\(^5\) Of course, under this arrangement Firm I would not be able to drive Firm II out of the market and take advantage of the monopoly that might result,\(^6\) but this is avoided only by denying consumers the low prices which real competition would produce. Fully distributed cost pricing thus offers neither the economies of scale that could be provided by a single firm nor the price cutting and pressure for innovation that come with true competition.

\(^4\) In theory, one might expect Firm II to obtain all the business. But in practice the commissions do not require utilities to price precisely at fully distributed cost (FDC). In some cases the commissions have based a utility's rates on the fully distributed cost of another utility so that both can remain in operation.

\(^5\) See Domestic Passenger-Fare Investigation, Phase 5—Discount Fares, C.A.B. Order No. 72-12-18 (1972) at 53; letter of Ralph E. Erickson, Deputy Attorney General, Hearing on F. 1457 Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 92d Cong., 2d Sess. 102-03 (1972).

\(^6\) Justice Marshall discussed this point in the Ingot Molds case but did not feel the Court was qualified to evaluate it. American Commercial Lines, Inc. v. Louisville & N. R.R., 392 U.S. at 586. There is an impressive body of literature arguing that it is improbable that a profit-maximizing seller, even one with monopoly power, would or could use below cost selling to monopolize additional markets. REPORT OF THE TASK FORCE ON PRODUCTIVITY AND COMPETITION (STIGLER REPORT), 115 Cong. Rec. 15993, 16094 (1969); Turner, Conglomerate Mergers and Section 7 of the Clayton Act, 78 Harv. L. Rev. 1313, 1339 (1965); Hearings on S. 1494 Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 91st Cong., 1st Sess. 270 (1969).
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C. **Who Advocates Fully Distributed Cost?**

As evidence that a fully distributed cost standard protects the inefficient supplier and results in higher prices, advocates of the incremental cost approach point to the fact that fully distributed cost is advocated most vigorously by competitors of regulated utilities who stand to benefit from higher utility rates. Buslines, railroads, express companies, and airlines have argued before the CAB for a fully distributed cost standard which would increase the rates of competing airlines.\(^7\) Coal interests, unregulated gas producers, and pipelines have urged the FPC to employ a fully distributed cost standard in setting the rates for competing pipelines.\(^8\) Motor carriers and water carriers faced with the prospect of reduced rail rates have urged the ICC to employ such a standard.\(^9\) Finally, the railroads, normally opposed to fully distributed cost,\(^10\) have argued that the standard should be employed in setting rates for truckers.\(^11\) The Department of Justice

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11. Animal Feed—Kansas City, Mo. to Chicago, 325 I.C.C. 147, 151 (1965). Similarly, airlines which normally justify their own promotional rates on an added cost formula, have argued for FDC in opposing the promotional rates of other air carriers. Group
has sometimes favored a fully distributed cost criterion, but has more
frequently opposed it. Occasionally, industrial consumers have
advocated fully distributed cost when proposed rate reductions would
help their competitors, or when fully distributed costing, by some
quirk, would produce lower rates for them alone. But the evidence
is clear: Competitors who face increased price competition from rate
reductions have been the prime advocates of fully distributed cost
methods of price regulation.

II. The Standards Applied by Regulatory Agencies

The battlefield between these two standards has been the regula-
tory agencies. In the decade following World War II, the CAB, FPC,
and ICC utilized fully distributed cost in some form. During the
past decade, however, the winds have shifted toward an incremental
cost standard.

A. The Application of Fully Distributed Cost

Although the CAB recognized early that a rigid fully distributed
cost standard could stultify the growth of the airline industry, it never-

12. The Justice Department opposed FDC in the Ingot Molds case. Brief for the
United States at 8, 14-17, American Lines v. Louisville & Nashville R.R., 302 U.S. 571
(1968). It took a pro-FDC approach in an FCC proceeding. Reply Comments of the U.S.
Department of Justice (Dec. 29, 1970) at 29, Specialized Common Carrier Services, 33
F.C.C. 2d 408 (1972). At oral argument, in that proceeding, the Department's enthusiasm
for FDC had diminished to a "slight preference." Tr. 247 (Jan. 22, 1971). The Justice
Department has carried its ambivalence to the ultimate conclusion. It has opposed an
FDC criterion in a federal selling below cost statute as producing higher consumer prices,
undesirable price rigidity and inefficient resource allocation. Hearing on S. 1457 Before
the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 92d
Cong., 2d Sess. at 102-03 (1972).

13. E.g., Corn and Soybeans, Midwest to Gulf Ports, for Export, 339 I.C.C. 595, 610
(1971); Corn and Soybeans, Midwest to Pacific Northwest Ports, 339 I.C.C. 465, 479 (Div.
2, 1971); Portland Freight Traffic Ass'n v. Northern Pacific Ry., 337 I.C.C. 826, 827
(Div. 2, 1970); Wine, Pacific Coast to East, 320 I.C.C. 119, 120, 134-35, 144 (Div. 2, 1965);

Natural Gas Co., CCH Util. L. Rep. ¶ 11,223 (FPC 1971), modified ¶ 11,302 (FPC 1972);

15. A fully allocated cost standard
would probably unjustifiably restrict the development of freight volume and un-
warrentably deny the public as well as the existing types of traffic the benefits in
reduced unit costs which such volume increases would bring.

Air Freight Rate Investigation, 9 C.A.B. 340, 346 (1948). See also Domestic Passenger-
Fare Investigation, Phase 7—Fare Level, C.A.B. Order No. 71-4-59, 71-4-60 (April 9, 1971)
at 45-46.
 nevertheless fixed rates at “attainable” full cost levels. The Board took a protectionist view of its responsibilities and on occasion propped up rates above the incremental costs of certain airlines in order to protect their competitors. In 1948, in the *Air Freight Rate Investigation*, the Board prescribed minimum freight rates for the industry which were based on the “full costs” of the noncertified carriers. Eastern Airlines objected because the record did not show that its freight operations were conducted at a loss, but the Board nevertheless said “the controlling fact is that a large proportion of the freight rates for the industry as a whole was below cost.”

Even though costs and average yields may vary from carrier to carrier, “in a competitive industry composed of a group of carriers performing the same class of service, the rates charged by all carriers for such service must be substantially the same.” In the Board’s view, uniform rates that exceeded a carrier’s cost were apparently appropriate for “the maintenance of competitive balance, the development of air freight on a sound economic basis and the need to avoid discriminatory rates . . .”

Similarly, the FPC utilized a fully distributed cost standard in setting pipeline rates. In 1952, in the *Atlantic Seaboard* case, the Commission allocated fifty percent of the pipeline fixed cost to the “demand charge,” a rate paid exclusively by the pipeline peak customers, and the other fifty percent to the “commodity charge,” a rate paid by both peak and off-peak (interruptible) customers. Since pipelines and their distributor customers base their charge for interruptible gas on the commodity charge, *Atlantic Seaboard* costing produced high interruptible rates and made it difficult for pipelines to compete with other energy sources for large industrial customers.

The *Atlantic Seaboard* formula was not expressly designed to discourage competition among the pipelines. Nevertheless, protectionism

17. 9 C.A.B. at 358 n.3.
18. 9 C.A.B. at 350.
19. Atlantic Seaboard Corp. et al., 11 F.P.C. 43, 52-57 (1952). Gas is often sold under a two-part tariff composed of a “demand charge” and a “commodity charge.” The demand charge is supposed to reflect the cost of the capacity built into the pipeline to accommodate peak requirements for firm customers, while the commodity charge is the payment for the volume of gas consumed. Distributors generally use the pipeline commodity charge as the basis for their rates to “interruptible customers,” typically large industrial customers who use gas for boiler fuel. If the pipeline is permitted to establish a relatively low commodity charge, interruptive gas rates can be lower and other fuels such as coal and oil may find it more difficult to compete.
20. The FPC agrees that the *Atlantic Seaboard* formula has “serious infirmities,” makes an “artificial assignment” of fixed cost, “rarely reflects with accuracy utilization of the system by the various classes of service,” that “it is generally necessary to adjust Seaboard rates to get workable results,” and that these adjustments have ranged as high as one hundred percent. United Fuel Gas Corp. et al., 31 F.P.C. 1942, 1947 (1964).
has entered the Commission's thinking and it has on occasion permitted pipelines to require customers who obtained new sources of supply for part of their requirements to continue to contribute toward the common cost of their formerly exclusive supplier.\(^{21}\) The purpose was, according to the D.C. Circuit, "to restrain the customer from shifting its purchase from its historic supplier to a certified second supplier to the full extent otherwise dictated by the relative costs of gas."\(^{22}\)

For years the ICC assumed the role of a "giant handicapper"\(^{23}\) which achieved a division of the market by adjusting the prices of competing modes of transportation, typically requiring rail rates to be above water rates to assure that water carriers obtained a "proportionate share" of the market.\(^{24}\) In Senate hearings questioning the propriety of such a policy, ICC Chairman Freas summed up the Commission's position in favor of fully distributed cost (using "full cost" for fully distributed cost and "out-of-pocket cost" for incremental cost):

Whenever conditions permit, given transportation should return the full cost of performing carrier service. . . . In many instances, however, the full cost of the low-cost form of transportation exceeds the out-of-pocket cost of another. If, then, we are required to accept the rates of the high-cost carrier merely because they exceed its out-of-pocket costs, we see no way of preserving the inherent advantage of the low cost carriers.\(^{25}\)


24. Class Rate Investigation, 1939, 286 I.C.C. 591, 810 (1948), modified, 274 I.C.C. 229 (1949), aff'd, Alabama G.R. Co. v. United States, 88 F. Supp. 982, 987 (N.D. 1950), aff'd, 340 U.S. 216, 223 (1951). This policy contributed to the decline of the railroads' market share, and the railroads carried their case to Congress. The railroads' efforts culminated in 1958. They sought legislation which would preclude the ICC, in fixing minimum rates, from considering the impact of those rates on the traffic of other transportation modes, the relative charges for those other modes, and whether the proposed charges were lower than necessary to meet competition. The legislation which emerged retained the National Transportation Policy requirement that the ICC should regulate all modes of regulated transportation so as to recognize and preserve the inherent advantages of each. But it added a new provision to the effect that "[r]ates of a carrier shall not be held up to a particular level to protect the traffic of any other mode of transportation." This statement seems clear enough, despite the qualification, "giving due consideration to the objectives of the national transportation policy." Interstate Commerce Act, § 15a(3), 49 U.S.C. § 15a(3) (1970).

Commissioner Freas' testimony was elevated to prominence in 1963 in the *New Haven* case. There the ICC required that rail rates be held six percent above competing water-truck rates to assure the continued operation of the coastal water carriers. The Supreme Court set aside the Commission's findings, holding that the ICC had no right to impose high rates on the railroads unless it was to protect an "inherent advantage" of the water carriers such as the kind described by Commissioner Freas. Since the Commission had made no findings of "inherent cost advantage," it could not require a rail rate differential.

The *New Haven* case left the ICC to decide upon the criterion it would use to determine "inherent cost advantage" whether by fully distributed cost, incremental cost, or some other cost datum. The issue was temporarily resolved in the *Ingot Molds* case, where the Supreme Court sustained the Commission's use of fully distributed cost in disallowing reduced rail rates, though the Commission indicated that it had not given the matter sufficient consideration but rather would do so in pending rule-making.

B. *The Application of Incremental Cost*

In recent years the three regulatory agencies have steered away from a fully distributed cost standard and closer toward one based on incremental cost. In doing so they have cited enabling legislation which requires them to ensure that service is supplied at the "lowest reasonable rate"; they have increasingly come to adopt economic arguments that incremental pricing benefits all consumers of the service, while fully distributed pricing may make it impossible for the service to compete with other suppliers.

1. *The Civil Aeronautics Board*

The Federal Aviation Act of 1958 requires the CAB to consider in rate-making "[t]he need in the public interest of adequate and efficient transportation . . . at the lowest cost consistent with the furnishing of such service"; to encourage and develop an air trans-

28. 392 U.S. at 591.
portation system with "adequate, economical, and efficient service"; and "to promote, encourage, and develop civil aeronautics." Thus the Board can be expected to look favorably on "discount" services which increase the use of air transportation, improve load factors, and offer customers more service options and lower rates.

Moreover, it has been held that under the Act the Board need be concerned only with the air transportation industry and need not consider the effect of airline rates on competing surface or water carriers. Surface carriers may attack airline rates only on the basis of the traveling public's interest in reasonable and non-discriminatory rates, not in terms of their interest as competitors. Moreover, the CAB has also extended this policy of not protecting competitors to those within the airline industry. Competing airline carriers, the Board has held, are "in no way entitled to the preservation of a particular share of the market." In the late 50's and early 60's, the CAB turned away from the contention that "a fare should be high enough to pay its own way eventually on a fully allocated cost basis." Instead, it required any "discount" or promotional service designed to fill lightly loaded aircraft, such as youth standby, military, or family plan transportation, to meet two criteria. First, the plan must have a beneficial "profit-impact" on the carrier; that is, its revenues must more than cover the costs added by the traffic, taking into account possible diversions from other airline services. Second, the discount must not have an adverse effect on competing carriers sufficiently serious to make the fares unreasonable. This second requirement, while intended to limit the vigor of price competition, did not rest on a fully distributed cost standard. The Board also held that the burden of proof of such adverse effect was on the complaining carriers. Because high standards of proof were required, competing carriers simply avoided raising the issue. Thus,

30. Federal Aviation Act, § 102(a), (c), (f), 49 U.S.C. § 1302(a), (c), (f) (1970).
34. Pittsburgh-Philadelphia No-Reservation Fare Investigation, 34 C.A.B. 508, 514 (1961).
35. Three cases in which this twin standard was employed are: Frontier Excursion Fares Case, 42 C.A.B. 440 (1965); Delta Off-Peak Coach Fares, 39 C.A.B. 377 (1963); Capital Family-Plan Case, 26 C.A.B. 8 (1957).
the profit-impact criterion, taking as its cost standard the "added cost" of the service, became the only effective standard for discount rates.\textsuperscript{37} The profit-impact test assumed that discount fares were applied solely to "fill up" unused space, and that equipment was not designed or purchased nor were flights scheduled merely to meet the needs of the discount service. But by 1969 the CAB observed that discount fares amounted to some forty percent of passenger traffic, thereby casting doubt on the assumption that they required no additional equipment or scheduling.\textsuperscript{38}

In January 1970, the Board commenced the \textit{Domestic Passenger-Fare Investigation}.\textsuperscript{39} In its recent Phase 5\textsuperscript{40} decision, it reaffirmed its adherence to the profit-impact test but added two new wrinkles to its discount costing standard. Starting from the proposition that in the "long term" all costs are variable but in the "short term" most costs are fixed since an airline cannot immediately expand its fleet or add to its schedules, the Board concluded that the profit-impact test could measure only short-term benefits. That is, while in the short term discount fares may indeed fill empty seats and profit the airlines, in the long term the carriers will inevitably add equipment and increase schedules to accommodate them. Therefore, to ensure that discount services would not become permanently embedded in the fare structure, the Board decided that all discount fares should be reviewed every eighteen months and that the airlines would have to provide clear evidence of profitability in order to continue them. The Board specifically declined, however, to prohibit discount fares because this "would largely remove from airline pricing the element of competition, and thus inhibit some of the dynamism and innovation which

\textsuperscript{37} This standard has been applied uniformly in \textit{Domestic Passenger-Fare Investigation}, Phase 5—Discount Fares, C.A.B. Order No. 72-12-18 (December 5, 1972); Standby Youth Fares—"Young Adult" Fares, [1964-1971 Transfer Binder] \textit{CCH Av. L. Rep. }\$21,886 (CAB 1969) (youth fares); Family Fare Tariffs, [1964-1971 Transfer Binder] \textit{CCH Av. L. Rep. }\$21,782 (CAB 1968) (family fares); Rates for Transportation by Air of Nonpriority Mail, 30 C.A.B. 951 (1960); Nonpriority Mail Rate Case, 34 C.A.B. 143 (1961); Nonpriority Mail Rates, [1964-1971 Transfer Binder] \textit{CCH Av. L. Rep. }\$21,924 (CAB 1970) (nonpriority mail). The Board has said on at least one occasion that the profit-impact test should not be applied to basic services (e.g., first-class coach, and economy). U.S. Mainland-Hawaii Fares, 2 \textit{CCH Av. L. Rep. }\$22,074 at 14,154 (CAB 1972). On the other hand, it has accepted rates covering basic airline services (e.g., first-class fares, short haul fares) which do not cover fully allocated cost. Passenger Fare Revisions—Domestic Trunkline Carriers, C.A.B. Order No. 69-9-68 (Sept. 12, 1969) at 4, 7, 10, \textit{remanded}, Moss v. C.A.B., 430 F.2d 891 (D.C. Cir. 1970). \textit{Domestic Passenger-Fare Investigation Phase 4—Joint Fares, 2 \textit{CCH Av. L. Rep. }\$22,082 (CAB 1972), \textit{modified}, }\$22,071 at 14,159 (CAB 1973).


\textsuperscript{40} \textit{Domestic Passenger-Fare Investigation, Phase 5—Discount Fares, C.A.B. Order No. 72-12-18 (December 5, 1972).
has been characteristic of the industry."41 Finally, the Board decided to set full fares as if there were no discount fares in order to assure that the latter would not burden the former. This policy also meant, of course, that discount fares could not benefit the full fare passenger.42

There is little doubt that the CAB has in fact adopted the rhetoric of incremental cost analysis. It has said that incremental pricing benefits all customers by lowering rates and improving service. A primary reason for this view is that proper aerodynamics require passenger aircraft to have a round cross-sectional design. This leaves a large amount of "belly-cargo" space, suitable for passengers' baggage, mail, express, and freight. Each change in design, from propeller planes to jumbo jets, has produced this excess capacity at least temporarily. The Board clearly considers discount services desirable because they help fill this spare capacity.43 The discount fares:

have provided an expanding traffic base to support a steadily increasing total volume of service to the traveling public as a whole to the benefit not merely of those traveling under promotional [discount] fares, but to the benefit of the normal fare-paying passengers as well.44

Referring to the freight services, the Board has said:

Where the demand for one of the jointly produced services [e.g., cargo service] is not sufficient to permit that service to recover full costs from the rates charged, then clearly the users of all of the services benefit from the establishment of rates at the level which will produce the greatest total revenues, even though this may mean that some services [e.g., passenger service] bear a higher share of the joint costs than others. In that event, the revenues realized by the byproduct service go to reduce the costs which would otherwise have to be borne by the other services.45

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41. C.A.B. Order No. 72-12-18 at 53.
42. Unlike its earlier decisions, the Board's Phase 5 decision found that youth and family fares did not meet the profit-impact test. "Discover America" fares were judged to have passed the profit-impact test and were deemed reasonable. Youth standby fares produced a marginal benefit under the profit-impact test but were judged discriminatory. The Board used the profit-impact test to measure whether the discrimination inherent in the discount fares was "unjust." All discount fares are prima facie discriminatory. However, if they generate enough traffic and have a sufficiently favorable profit-impact (e.g., Discover America fares), they are not unjustly discriminatory. On the other hand, a marginal benefit is not sufficient to justify discrimination, e.g., youth standby fares. Accordingly, the Board uses the profit-impact test as a standard to measure reasonableness and unjust discrimination.
44. Id. at 14, 811.
45. Domestic Passenger-Fare Investigation, Phase 7—Fare Level, C.A.B. Order No. 71-4-59, 71-4-60 (April 9, 1971) at 44-45. "In such circumstances, it would clearly be improper in fixing the rates for the other services to use fully allocated costing." Id.
2. The Federal Power Commission

The FPC began its shift toward incremental costing at about the same time as the CAB. Under the Natural Gas Act, the FPC is required to ensure that gas is sold "at the lowest possible reasonable rate consistent with the maintenance of adequate service." Thus its objective is to achieve low rates, not protection for competitors. Accordingly, the Commission has held that coal interests, which are outside its jurisdiction and responsibility, are not entitled to protection from pipeline companies, and that comparisons of the relative costs of coal and gas are irrelevant.

In 1962, in the Natural Gas Pipeline case, the Commission argued that an increase in commodity rates toward full Atlantic Seaboard formula costs would not be in the public interest because the higher rates would cause Natural Gas to lose interruptible sales, forcing its remaining customers to bear all of the fixed costs previously borne by the interruptibles. In 1967 in the second Atlantic Seaboard case, the Commission used the same rationale:

[...] competition from one of these sources [liquified petroleum gas] could justify a lower commodity rate for gas sales than might otherwise be appropriate. [...] It is the injury to the other gas customers of the pipelines which would result from a loss of sales which will make a significant contribution to fixed charges rather than the competitive position of the gas pipeline, as such, which is determinative.

As the foregoing cases illustrate, the FPC has increasingly come to rely on the economic analysis underlying incremental pricing. It has

49. Natural Gas Pipeline Co. of America, 28 F.P.C. 731 (1962).
50. 28 F.P.C. at 734.
52. 37 F.P.C. at 249 n.5.
explicitly stated that rates which cover incremental costs and contribute to fixed costs benefit not only the consumer of the service whose rates are in question but also customers who purchase the company's other service; they increase the load factor and reduce unit costs, thereby reducing the share of fixed cost that must be absorbed by other pipeline customers. Conversely, rates which cover fully distributed costs as prescribed by the Atlantic Seaboard formula may drive customers to other suppliers, thereby forcing the remaining customers to pay higher rates.

More recently the apparent shortage of natural gas has led the FPC to reexamine its use of incremental cost. In El Paso Natural Gas the Commission promised a "searching reappraisal" of its cost allocation methodology in order to promote the conservation of gas for residential and other clean fuel uses and to discourage large volume industrial and boiler fuel use. While the Commission acknowledged that it had "tilted" away from the Atlantic Seaboard formula to make gas more competitive with other fuels, it resurrected the formula for purposes of making allocations between El Paso's Southern Division (whose rates were at issue) and its Northwestern Division, and between jurisdictional and nonjurisdictional customers. Its decision had little direct impact on El Paso's competitive rates.

The natural gas shortage should increase the commodity (volumetric) cost of natural gas, and this should serve to induce industrial and boiler fuel consumers to use other energy sources. An arbitrary allocation of fixed cost to the commodity charge as called for by the Atlantic Seaboard formula would, however, be totally unrelated to the degree of scarcity of the gas.

Despite the questions raised by El Paso, the Commission returned

55. Fuels Research Council, Inc. v. F.P.C., 374 F.2d 842 (7th Cir. 1967); Northern Natural Gas Co., 15 F.P.C. 1634 (1956); Transwestern Pipeline Co., 34 F.P.C. 659 at 678 (1965).
to incremental costing principles in the Columbia liquid natural gas case. There the Commission required the pipelines to price imported LNG on the basis of separate schedules that reflect the high incremental cost of LNG. In its first decision it imposed conditions which would also have required distributors to use incremental pricing. In its second opinion it withdrew this requirement, leaving the distributors and state commissions the option of averaging the high cost of the imported gas with the lower cost of gas from old sources, thereby enabling the sale of gas “at the lowest possible reasonable rate.”

3. The Interstate Commerce Commission

The ICC is required by statute to consider the need for adequate railway transportation “at the lowest cost consistent with the furnishing of such service.” Unlike the CAB or the FPC, however, the ICC is subject to a unique statutory directive requiring it to protect competition among the different modes of transportation subject to its regulation. The ICC may maintain the rates of one carrier (typically the railroads) to protect the traffic of another (typically the barges), if necessary to protect an “inherent advantage” of the second carrier.

Although Ingot Molds seems to have identified the ICC as a commission which uses a fully distributed cost criterion, the earlier New Haven case appears to have had greater impact on the Commission’s current posture. For in New Haven, the Supreme Court did two things. First, it struck down a Commission-prescribed differential: It criticized the Commission’s role as a “giant handicapper” and indicated that the new legislation had ushered in a new era of “hard competition.” Second, the Court said that the water carriers had the burden of proving any inherent cost advantage that they wished the Commission to protect. Moreover, the Commission came to realize the futility of attempting to control market divisions between the water carriers and railroads where both faced substantial competition from unregulated trucking: It could keep the railroads’ rates up to protect the water carriers but the effect might be that all traffic would then flow to an unregulated mode.

Accordingly, the ICC has used an incremental cost standard to measure the reasonableness of rates where the regulated modes of trans-

59. Columbia LNG Corp. et al., CCH UTIL. L. REP. ¶ 11,319 (FPC 1972), modified, ¶ 11,343 (FPC 1972) at 13,402; 13,405; 13,533.
62. Id.
transportation face competition from unregulated suppliers. The Commission has also found a variety of other reasons to allow rate reductions over the protests of competing carriers claiming inherent cost advantage: that the reduction was not made to meet competition, or that it would not seriously injure the competitor; that the rate was above the fully distributed cost of the filing or complaining carrier, or that it would not require the low-cost carrier to price below its fully distributed cost; or that cost evidence was inadequate. In fact, there have been only two cases since New Haven, and none since Ingot Molds, which disallowed rate reductions to protect the inherent cost advantage of a competing carrier. Clearly, the Commission seems to have abdicated its role as a “giant handicapper.”

The ICC has been less explicit than the CAB or the FPC on the benefits of incremental pricing to consumers. Still, it has on occasion used the incrementalist rhetoric that rate reductions which increase revenues and improve efficiency are desirable. While the ICC has been short on rationale, however, it has rarely denied a rate reduction which meets the standards of incremental cost analysis.

63. Wooden Furniture, El Segundo, Cal., to Chicago, Ill., 332 I.C.C. 37 (Div. 2, 1967); Wine, Pacific Coast to the East, 329 I.C.C. 167 (1966); Grain in Multiple-Car Shipments—River Crossings to the South, 325 I.C.C. 752 (1965).
64. Wine, Pacific Coast to the East, 326 I.C.C. 119, 155 (Div. 2, 1965), aff’d, 329 I.C.C. 167 (1966) (rates would enable shippers to improve their competitive position in destination area).
70. The two cases we found were Volume Class Rates, Transcontinental Territory, 325 I.C.C. 735 (App. Div. 2, 1965); Pig Iron from Buffalo, N.Y. to Chicago, Ill., and Gary, Ind., 321 I.C.C. 121 (Div. 2, 1963).
Conclusion

The three federal regulatory commissions have now taken rather definitive positions consistent with the incremental cost approach. They appear to have accepted the view that incremental pricing criteria can benefit consumers, both those who buy the service whose price is in question and those who buy other services supplied by the same firm.

The fact that the competitors are the most frequent proponents of a fully distributed cost criterion is hardly astonishing. Nor is it remarkable that adherence to fully distributed cost standards is weaker in agencies whose primary obligation under the enabling legislation is to protect the interests of consumers. Finally, it was to be expected that few consumer representatives have advocated the use of fully distributed cost before the commissions: After all, cost standards that make for high prices are unlikely to commend themselves to purchasers, even if such standards are allegedly instituted for their own good.

What is surprising is the extent to which fully distributed cost seems to have been abandoned in the regulation of rates in the presence of competition. Nevertheless, proponents of fully distributed cost persist and are currently presenting their arguments to all three commissions in pending proceedings. The debate over the appropriate cost standard for future governmental regulation thus seems far from over.