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MARGINAL COST PRICING, INVESTMENT THEORY AND CATV: COMMENT

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I N his article, *Marginal Cost Pricing, Investment Theory and CATV*, James Ohls¹ makes a number of erroneous assertions concerning the optimum pricing of CATV. Most of his problems stem from a failure to properly define the environment in which the optimum price is to be set and the role that an optimum price should play. If one alters Ohls' implicit (and sometimes contradictory)² assumptions and if one keeps in mind the purpose prices should serve in an economic system, a number of Ohls' conclusions are altered.

I

Ohls states: "... once the programs have been created and sent over a system with channels and programs fixed, the marginal cost of having an additional subscriber tuned into them is zero. Hence, in a completely optimal world, actual viewing time would be priced at zero."³ This is true only if a completely optimal world is one in which consumer tastes are revealed without cost to producers. The appropriate type and amount of resources could then be allocated to the production of the desired mix of television shows without the guidance of a price system. But in such a completely optimal regime it would seem unnecessary to set *any* prices. The optimal mix of resources could be guided to the CATV industry, or for that matter to the cat food industry, by the same omniscient allocator.

In fact, as Minasian⁴ demonstrated in an earlier discussion of the pricing of over-the-air television, charging a zero price for a television signal on the

¹ James C. Ohls, *Marginal Cost Pricing, Investment Theory and CATV*, 13 J. Law & Econ. 439 (1970).

² For example, he seems to assume that using the price system is costless but then states that one of the variable costs is the cost of billing.

³ James C. Ohls, *supra* note 1, at 441.

⁴ Jora R. Minasian, *Television Pricing and the Theory of Public Goods*, 7 J. Law & Econ. 71 (1964). See also Roland N. McKean & Jora R. Minasian, *On Achieving Pareto Optimality: Regardless of Cost!*, 5 West. Econ. J. 14 (1966) and Harold Demsetz, *Information and Efficiency: Another Viewpoint*, 12 J. Law & Econ. 1 (1969).

grounds that it has already been produced is not an optimal pricing policy. Producers charging a price (assuming exclusion of non-payers is feasible) will receive profit and loss signals which can convey information concerning the type of programs desired by consumers and concerning whether more or fewer resources should be allocated to television production.

Ohls' optimal pricing system offers the consumer a choice of buying or not buying a one-month block of potential television viewing.⁵ Certainly, if pricing systems are nearly costless to administer, the consumer will be worse off if this unnecessary indivisibility is imposed upon him. If the costs of using the market system were such as to make it less expensive to proffer this "tied good" to the consumer, then efficiency might entail producing the cheaper (but less desirable) tied good. But this choice is by no means a foregone conclusion as Ohls suggests.

In a world of incomplete information, high transaction costs and high exclusion costs the proper pricing policy for a CATV owner is to offer that mix of services and prices that maximizes expected profits. He can offer his potential customers some combination of channel capacity, programming variety, picture quality, service quality, and provision for equitable treatment of customers.⁶ Prices could consist of a lump sum payment, a monthly payment, a per channel payment, or a per show payment (or some combination of these).⁷ It is not possible to say, *a priori*, which of these would be most efficient. Competition in either the product market itself or in bidding for the privilege of running a monopoly system⁸ should establish which of these best balances the costs of transactions and exclusion with the gains in information and divisibility. It should be clear that the preferred mix will not be the same for all markets.

Ohls is not clear as to the nature of the CATV system he analyzes. However, the following characterization would appear to be most consistent with

⁵ Ohls' optimal pricing scheme requires that the customer pay an initial fee for attaching to the system and a monthly fee to cover marginal costs. He includes in marginal costs a monthly cost of billing customers. Thus, pricing is not costless in his model. Yet he in no way justifies the implicit assumption that such billing is less costly than a lump sum payment or any other of the myriad pricing schemes available.

⁶ This could include such problems as establishing equity between those who join the system initially and those who join later. It also includes provisions which would safeguard customers against low initial prices and subsequent high prices when the consumer is "locked in."

⁷ If the CATV operator can initiate advertising, this opens up another possible price variable to either be combined with those listed in the text or, perhaps, to supersede them.

⁸ Harold Demsetz, *Why Regulate Utilities?*, 11 J. Law & Econ. 55 (1968) suggests that if there is competition for the privilege of being the sole producer in a certain field, then competitive prices could be achieved. The ability of local governments to bargain with cable operators might not be up to the task of protecting consumers. See Ralph Lee Smith, *The Wired Nation*, 210 Nation 588 (1970).

his argument. The CATV station is a passive conveyor of network originated shows; its market is so small that changes in preferences of viewers within this market would not influence the programming menu offered by the network. In this case the information content of program by program pricing is minimal and the basic objection to Ohls' monthly pricing would disappear—although there is still no reason to call the policy optimal. Such a characterization would describe CATV in its early years. It is no longer adequate today. It is now technologically and economically feasible for cable operators to enter large urban markets, to form cable networks, or to originate programs. Consequently, the information feedback of the price system is more valuable and program-by-program pricing is more likely to be useful—if cable operators are legally permitted to engage in these activities. The fact that these activities might be illegal should not influence the analysis. Ohls is trying, after all, to determine what the rules *should* be.

II

In his discussion of a rule for allocating space on a common carrier channel,⁹ Ohls purports to demonstrate that allocating the space to the highest bidder is not necessarily the optimal rule.

This is true because of the fact that the welfare gains accruing from the common carrier service accrue not only to those who use the service, but also to those who subscribe to the system. Selling the common carrier service to the highest bidder will maximize only the welfare which accrues to the buyers—the politicians using it for political messages. It will do this by ensuring that the person who needs the common carrier service the most—and is willing to pay the highest price for it—does in fact get it. But another potential common carrier service buyer—perhaps a civic association which wanted to use the CATV system to telecast a concert—might provide more welfare to the subscribers of the CATV system. This welfare gain is not captured directly by the highest bidder rule.¹⁰

This suggests a question. If consumer welfare resulting from the concert is greater, why cannot the producers of the concert make a higher bid for the time slot? This Ohls fails to answer, but the answer would appear to be that for some unspecified reason the civic association cannot be compensated for providing the concert. If, in fact, some malfunction of the market mechanism¹¹

⁹ A common carrier sells time (or entire channels) to program originators. As a special case of the common carrier problem Ohls analyzes the situation in which one of the bidders for the open channel is a Pay-TV operator (perhaps even the cable owner himself). Ohls fails to explain how optimality is possible with a Pay-TV channel given his earlier statement that “. . . in a completely optimal world, actual viewing time would be priced at zero.” James C. Ohls, *supra* note 1, at 441.

¹⁰ *Id.* at 452.

¹¹ It would not be difficult for the civic center to receive payment for providing the

prohibits one set of bidders from registering bids that reflect the value of the space to society it is true that the "highest bidder" system will fail to allocate the space appropriately. But it is unclear as to why Ohls would regard such incorrect pricing as an inexorable law of nature.

Ohls' welfare function for the common carrier problem is also subject to question. He uses $W = TR + S - C$, where TR is total revenue, S is consumer's surplus, and C is total costs.¹² The consumer's surplus depends, however, on the shape of the demand curve. He derives his demand curve "by asking potential consumers at what monthly price they would hook onto the system knowing that they also had to pay a given hookup price."¹³ But such a demand curve will not show the maximum surplus available to consumers. If the price system is nearly costless to administer consumers will be able to achieve greater levels of welfare by paying on a program-by-program basis. And if the pricing system is costly to administer the firm should follow the profit maximizing pricing policy described above. Ohls' demand curve is, therefore, simply a special case; if, for example, collection costs were extremely high the firm's optimal policy might be to charge only an initial fee and the relevant consumer's surplus would be derived from this demand curve. In short, there is no good reason for Ohls' demand curve to be of any interest to the CATV owners and no reason for policy makers to concern themselves with the area under it.

broadcast either with advertising revenues, Pay-TV, or contributions. Intervention might be justified on grounds other than efficiency; Ohls, however, rules this out, *id.* at 439, so it will not be considered further here.

¹² *Id.* at 440.

¹³ *Id.* at 446.