

# On the Basing-Point System: Reply

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David D. Haddock's (1990) contention is really that the Jacques F. Thisse and Xavier Vives (1988) and the Bruce L. Benson, Melvin L. Greenhut, and George Norman (1990) papers do not provide a collusive model that yields base-point pricing (BPP). He apparently believes his paper (1982) established competitive BPP and suggests (in 1990) that the collusive model and hard empirical work alone remain. However, no collusive model is required since it has already been well demonstrated in the literature on plant location and spatial price theory that firms at feasible distance locations from a production center would accept BPP only because they fear that to do otherwise would subject them to retaliatory actions by the larger, more powerful firms at the production center. Moreover, the paper by Thisse-Vives (1988, henceforth TV) and Benson-Greenhut-Norman (1990, henceforth BGN) indicated sufficiently that other systems would arise than Haddock's competitive BPP, especially since the restrictive conditions necessary for the latter militate against its use. Haddock, in fact, appears to accept these conditions in his references to Arthur R. Burns' proposals (1936) of *near*-base-point pricing (NBPP). Hard empirical analysis would indeed be in order in determining the extent of NBPP, not competitive BPP.

This paper responds to the above noted issues in three main sections. Section I briefly provides some historical data on the collusive uses of BPP for any future researcher who seeks empirically to uncover a

true competitive BPP system. Most importantly from a theoretical standpoint, this section also explains why cartels will employ BPP notwithstanding the obvious and well-known thesis that other more profitable spatial pricing forms exist, *ceteris paribus*. Section II of this paper then distinguishes between profits and locational rents, in the process indicating in partial contradiction to Haddock (1990) that BPP does generate such rents. Though we have already contended that existing theory has demonstrated the use of different competitive forms of spatial pricing *and* locations under profit-maximizing conditions than competitive BPP, Section III of this paper provides specific basis for this contention as well as references. That same section discusses NBPP. To save space, we shall let the analysis on the subject of the TV (1988) and BGN (1990) papers stand by themselves, without repeat demonstrations or explanations of their results.

## I. What Is an Effective Cartel?

Haddock's references to weak or strong cartels and apparent suggestion (1990) that BPP would be used by weak cartels oversimplifies the subject. A cartel arises if it is able to cover the cost of organizing, and then survives if it establishes a sufficiently strong monitoring and enforcement (policing) system that is capable of limiting competition (for example, price competition, entry) to an acceptable level. Cartel costs vary with the characteristics of an industry (number of firms, geographic distribution of firms *and* consumers, etc.). When firms and consumers are geographically dispersed, organizational and policing costs tend to be high and the ability of the cartel to limit competition is lessened.

We echo many others when we suggest that BPP reduces policing costs for a geographically dispersed group. Haddock is not

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convinced by this argument. He contends that cheating will be detected more readily under f.o.b. pricing because prices (both f.o.b. and basing-point) are not easily observed. He proposes that effective monitoring must therefore involve observations of relative sales. He suggests that chiseling at a distance from a boundary "will create damning evidence" under f.o.b. pricing (1990, p. 959). We would propose, however, that prices are readily observed under many real basing-point pricing arrangements. Is Haddock suggesting that chiseling would not have been easily detected on the part of one or more of the eleven differentially located firms that offered cement to the U.S. government at the identical delivered prices of \$3.286854 (*Aetna v. FTC*, 1946)? Or what of the ten sealed bids priced at \$253,633.80 for reinforcing bars (*New York Times*, February 20, 1939), or the 59 steel pipe bids to the U.S. Navy Department, each for \$6,001.83 (*Annual Report of the Attorney General*, 1937, pp. 37–38)? Or, consider the eight geographically dispersed cement companies that submitted bids to the Illinois Department of Highways for deliveries at 102 sites in 102 Illinois counties, every bid for every delivery being *identical* in price (*Congressional Record*, May 31, 1959, p. 7961).

The reason that basing-point prices are relatively easier to monitor is that they are determined by a simple formula that is known by every cartel member. For instance, between January 1982 and September 1983 there were three regional bases for the pricing of cement in England, and delivery increments were applied to every 5 miles of road. These increments reflected haulage rate charges computed from a particular base point, *not the point of origin of the shipper*; these rates varied over time from 16p to 56p per ton per 5 miles of road. Prices certainly may not be readily observable under an f.o.b. system, but cooperative BPP makes them relatively more observable, and therefore reduces monitoring costs.

The fundamental feature of BPP that Haddock overlooks is that the main conspirators are typically localized at (near) the base point(s), and other spatially dispersed

firms feel *obliged* to adhere completely to the system. A chiseler must be punished if caught, or there will be no effective deterrent to cheating. When chiseling under some organized type of pricing system other than BPP affects only a single firm located at a distant site, the incentives and ability of the cartel to retaliate and punish the transgressor are quite weak. This is particularly the case if the affected firm is small and not part of the main group of powerful conspirators. When chiseling impacts all cartel members, including the largest and most powerful, as would be the case under BPP, the potential for *and* likelihood of retaliation is much greater. This could conceivably induce, in some countries, the *pro*collusive type of antitrust action mentioned by Haddock; however, in a country such as the United States of the late twentieth century, any BPP cartel would be likely to pursue more subtle means of punishing a chiseler.

We contend that even if monitoring costs are no lower under a basing-point system than they are under some undefined, organized f.o.b. type of arrangement, *total* BPP cartel costs (which include enforcement as well as monitoring costs) will tend to be less. The imposition of credible punishment is an important part and cost of effective cartelization. For example, Clair Wilcox (1960) mentioned 49,000 pages of testimony along with 50,000 pages of exhibits on cement industry prices that were presented to the Federal Trade Commission. After also discussing the equally detailed documents on record concerning the steel industry, he went on to review penalties. Those imposed by the respective cartels on member firms that failed to adhere to the system were strikingly severe (pp. 280–81). He concluded that "If basing point pricing were a spontaneous outgrowth of natural causes, as some economists have argued, it would scarcely have been necessary to go to such lengths to ensure that its requirements be observed" (1960, p. 281).

Haddock is also incorrect when he suggests that sellers under BPP seem relatively more homogeneous to buyers than a cartel would wish (1990, p. 959). The fact of homogeneous output is exactly one reason why the system is desired by the large firms

located at the base point. The steel, cement, and plywood firms that located at base points wanted *and took advantage of homogeneity* via a spatial delivered price that allowed them to maintain their markets over substantial distances. Haddock ignores an important aspect of many of these industries when he contends that a cartel would prefer geographic market division. As Wilcox (1960, p. 280) observed, changes in the geographic pattern of demand for steel (and presumably other construction material) took place rapidly in the United States. Thus, for these industries, producers' locations are fixed while consumers' are not.<sup>1</sup> When subject to geographic market division and f.o.b. pricing, firms would have to build new facilities to follow demand. This is not required as often under BPP since the large powerful firms under BPP can readily sell in new distant markets.<sup>2</sup>

## II. Profits or Rents?

Haddock implies that cartelization must fulfill its objectives (for example, joint profit maximization, entry deterrence), or the cartel is ineffective. He refers to Ronald N. Johnson and Allen M. Parkman's (1983) demonstration that the cement industry did not earn supranormal profits, proposing this as evidence that any entry deterring efforts by the firms in the industry had to be ineffective. It would then seem to follow that any noncooperative, noncontrolled system could also be ineffective with respect to entry deterrence.<sup>3</sup> However, long-run rents

in a true BPP system can appear in different form than higher net profits, while also resulting from entry deterring efforts. In particular, competition for prime locations would bid up the value of these sites. These locational rents would be capitalized as part of land values, rather than appearing regularly on P&L statements as high profits. More fundamentally, cement industry profits and individual firm profits are very different matters. This is especially the case because the distant small firm locates differently than a strictly competitive f.o.b. firm while, at the same instant, earning less under BPP than it otherwise would net (Melvin L. Greenhut, 1956). Finally, note that for risk-averse individuals, collusion that reduces the behavioral uncertainty inherent in noncooperative oligopoly could easily make the affected firms better off, even if nominal profits do not increase in any measurable way.

## III. Conclusions: What in Fact Is Haddock's Noncooperative Spatial Pricing System?

Haddock's conclusions seem to agree with BGN that a true basing-point system would *not* exist under competitive conditions. Only its reflection would arise, with distant firms offering a modest discount.<sup>4</sup> He thus emphasizes what Burns (1936) called "near-base-point pricing," NBPP. If this is what Haddock means by competitive BPP, then

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regard that the only examples of BPP which Haddock now appears to consider to be valid come from Europe "where the pricing structure is established and enforced through governmentally established bureaucracies" (1990, fn. 5). While we do not agree with Haddock that these are the only prime examples (for example, the federal milk order system in the United States has many basing-point characteristics), the fact that the most obvious examples arise in governmentally regulated settings reinforces the long-standing view that nongovernmentally imposed BPP is associated with cooperative rather than competitive behavior.

<sup>4</sup>A modest "discount" system could indeed prevail, and in a crude sense it often does in retailing where an uptown (suburban) department store *and* the uptown branches of downtown stores charge higher prices than the downtown price. Quite significantly, the differences in price correspond roughly to the time-distance "cost-saving" of suburban residents who shop at the stores located nearest them rather than having to go downtown.

<sup>1</sup>BGN assume immobile consumers as well, but demonstrate that even in this case noncooperative pricing is very unlikely and market segmentation is the competitive result. In contrast, Haddock implies that market segmentation is strictly a collusive outcome.

<sup>2</sup>This is another consideration that would reinforce the TV (1988) conclusion that BPP becomes a relevant collusive practice.

<sup>3</sup>Haddock apparently accepts George J. Stigler's (1971) theory of economic regulation since he suggests that regulation and licensing may be a source of entry limits. According to this view, most regulatory actions provide cartel-like benefits for the regulated firms rather than benefiting consumers. Stigler's theory is based on the public choice paradigm in which bureaucrats and other public officials are driven by self-interest rather than public interest motives. Observe in this

there really is little disagreement between us except semantical. After all, competitive price discrimination, which just undercuts the base-point schedule, that is, NBPP, is precisely the noncooperative price equilibrium that arises in the BGN extension (1990) of the TV (1988) paper.

Competition in spatial markets, where both immobile buyers and sellers are spatially dispersed and transportation costs are significant, as modeled by Haddock (1982) and BGN (1990), leads naturally to a segmented market structure under which spatially separated firms, acting *independently*, would increase their profits by setting prices that undercut the distant rivals, *ceteris paribus*. It has, indeed, been well established in the literature on spatial price theory that freight-absorbing discriminatory pricing over a geographic space, as depicted by TV (1988) and BGN (1990), is the *natural pricing form* for noncooperative firms.<sup>5</sup> Certainly, demand elasticities can be expected on a priori grounds to differ at each buying site within a submarket (Edgar M. Hoover, 1936–37; Arthur F. Smithies, 1941; Greenhut, 1956). Note further that even the traditional view of f.o.b. pricing as a competitive process comes into question when invasion of another firm's submarket through price discrimination is considered (Greenhut, Norman, and Chao-shun Hung, 1987; Benson and Greenhut, 1989). Competitive spatial price discrimination enhances consumer welfare *relative* to a basing-point system, which welfare consequence is a rather clear theoretical prediction, not the unpredictable empirical issue suggested by Haddock.<sup>6</sup> Furthermore, BPP

is a hybrid price system characterized by freight absorption and phantom freight, as all firms at sites other than the base point are obliged to price discriminate while those located at the base point price f.o.b. mill.

When a *true* basing-point pricing system arises, it is likely to have been imposed as a result of a cooperative process (Machlup, 1940; Stigler, 1949) under which the distant sellers feel obliged (coerced) to follow the established system (Greenhut, 1956; Wilcox, 1960). As such, it provides strong corroborative evidence of cooperative pricing, particularly when accompanied by organized enforcement efforts and punishment of those who cut price in violation of rate books, and so on. When Haddock's *quasi*-base-point price system arises, it is in the form of discounts offered to buyers located most proximate to a distant seller.

Two final issues warrant mention. (1) Haddock's statement (1990, p. 957) that "It seems peculiar to try to settle an essentially *empirical* issue through pure theory,..." (emphasis added) reveals a failure to appreciate the place of theory in understanding the world we live in. Specifically, what is the empirical issue? Surely not the issue of rivalrous versus collusive behavior. That issue is a purely theoretical one that can be resolved only through careful consideration of the theory of pricing behavior. A theoretical model explains the circumstances under which a firm will price f.o.b. or follow BPP. Then, and only then, does the empirical determination of the form of pricing, its circumstances *and* extent become relevant. (2) Based on theory, the reason for a distant firm's adherence to BPP requires just one restrictive condition: fear of the impacts that would follow from competitive pricing. On the other hand, the reasons why firms at the production center use BPP to protect rents rather than what otherwise would *appear* to be more profitable systems are the homogeneity/near homogeneity of their goods,

<sup>5</sup>For empirical evidence of this pricing *in* the United States, West Germany and Japan, see Greenhut (1981).

<sup>6</sup>Indeed, we find Haddock's discussion of welfare implications somewhat mystifying since the welfare benefits he discusses arise under NBPP (which is a form of spatial price discrimination) and BGN never suggested that such gains would be "modest." We are also surprised that Haddock turns to Austrian arguments to defend his position on competitive BPP that was originally based on a very non-Austrian static equilibrium model. Of course, producer surpluses are relevant, but the gains in consumer surplus from the breakdown of a basing-point system do not arise solely

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from a surplus transfer: the non-base point firm is also better off. Surely Haddock is not suggesting that BPP is acceptable because the base-point firms are better off even though consumers and distant firms lose out?

the simplicity of BPP, and the low costs in implementing, monitoring, and enforcing the system.

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