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The Resale Price Maintenance Policy Dilemma: Comment*

I. Introduction

The issue of quality valuation, especially as it relates to "imperfectly competitive" markets, has a long lineage in the history of economic theory. E. H. Chamberlin made the issue a central feature in his paradigm of monopolistic competition in 1933. More recently, the issue of quality has arisen with respect to monopoly [19] and, even closer in time, to the matter of the efficiency of vertical restraints, including resale price maintenance (RPM) and exclusive territories [7].

In a recent contribution to this *Journal*, Roger D. Blair and James M. Fesmire (hereafter BF) [1] analyzed an alleged RPM policy dilemma created by product-quality changes made possible by vertical restraints. BF did so with respect to the effects that the introduction of price or non-price restraints might have on consumer (and consumer/producer) surplus. Using the Spence-Comanor argument concerning the possible existence of so-called inframarginal consumers (who do not value quality changes initiated by producers as much as do marginal consumers), BF show that RPM can cause welfare to decline. Thus the policy dilemma: Neither per se legality nor illegality of vertical restraints can be defended due to ambiguous effects of RPM on welfare. And worse, the rule of reason criterion on which decisions currently are based "appears to be unavailing as well due to measurement problems" [1, 1046].

We have little quarrel with the formal analysis BF used to arrive at this unhappy conclusion. The purpose of this note is to explore the analysis and logic that undergirds the Spence-Comanor-BF notion of "inframarginal consumers." We show that vertical restraints should indeed be per se legal. The policy conundrum suggested by BF's analysis is less of a dilemma than they believe.

II. Vertical Restraints and Consumer Welfare

The important issues and contributions to the theory of vertical restraints are adequately treated in BF and elsewhere [2]. A few considerations are key for the present investigation. In Bork's view "consumer choice will dictate the use or non-use of r.p.m. When r.p.m. is the more profitable course for the manufacturer of product x, we know that consumers as a whole prefer product x with the reseller-provided information and service that is purchased by r.p.m. . . . The consideration of consumer choice supports the proposal to legalize manufacturer r.p.m." [3; 4, 742-43]. Many explanations of the kinds of quality improvements that might accompany RPM followed [13; 14; 11].¹

Others demurred from the "efficiency rationale," chief among them Comanor [7] and Comanor

*We are grateful to David Kaserman for helpful comments on earlier drafts of this paper. We, however, assume complete responsibility for its contents.

1. It is interesting to note, as BF point out, that economists and businesspersons were long ago very well aware of the efficiencies of the various forms of vertical restraints [6; 12] as well as the pitfalls of the passage of the prior restraint provisions of some of the antitrust laws [9].

and Kirkwood [8]. Building on Spence's analysis of product quality and monopoly, Comanor argued against per se legality of RPM on grounds that the economic welfare of inframarginal consumers may be substantially damaged by the development and introduction of new product qualities through vertical restraints. Specifically, Comanor claims to have identified particular "circumstances in which manufacturers' interests conflict with those of consumers" [7, 983]. According to this argument, important differences among consumers have been ignored by those who endorse per se legality of vertical restraints. Only so-called *marginal* consumers affect sellers' policies in Comanor's view, but the net welfare outcome is determined by *all* consumers, marginal and inframarginal. When a significant number of inframarginal consumers attach little or no value to new dealer services introduced through vertical restraints, inframarginal consumers pay higher prices for goods that are of no higher value to them. The welfare gains to marginal consumers may be offset, or more than offset, by the loss inflicted upon inframarginal consumers. Comanor also argues that price and non-price vertical restraints judged by a rule of reason make more sense for "new products or products of new entrants into the market" than for established products. For the latter he advocates per se illegality, or a rule of reason in which the defendant bears the burden of proving that the change in net welfare is positive [7, 1001-2]. BF cogently summarizes this argument [1, 1045].

III. Analytical Weaknesses in the "Inframarginal" Rationale

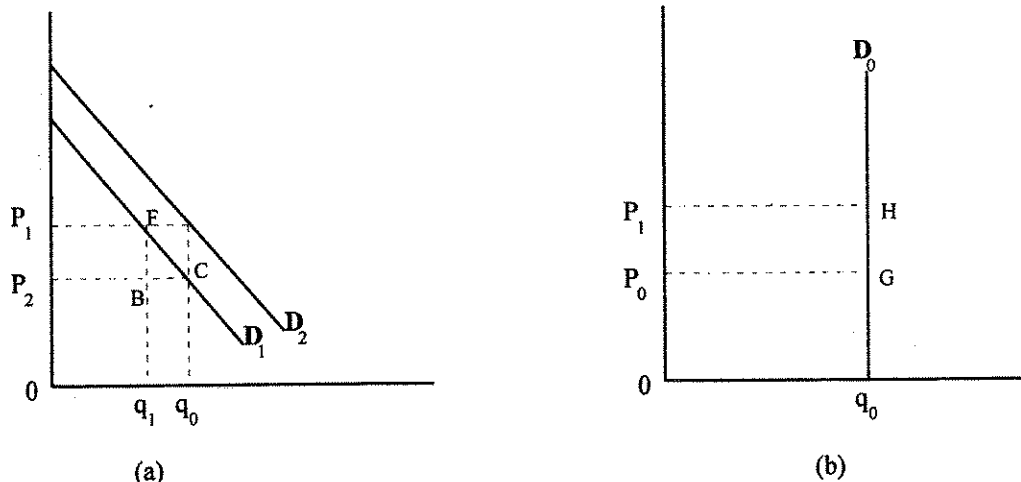
BF's argument raises some fundamental theoretical questions concerning the how and why of the different consumer valuations.² Comanor simply argues that "If the amount that a marginal consumer is willing to pay for higher quality even slightly exceeds the accompanying increase in price, he will generally buy more of the product. Similarly, if he does not find the improvements worth the increased price, he will generally purchase less" [7, 991]. Inframarginal consumers, who are "relatively insensitive to any price increase needed to fund a change in product quality," appear to be virtually unmoved. According to Comanor, "Even if, according to their valuations, the improvement does not warrant the additional cost, they will not buy less of the product as a result" [7, 991]. Marginal consumers alone consume marginally here and determine profitability to manufacturers, but *inframarginal consumers are not allowed (by assumption) to consume marginally, thus creating the ambiguous welfare effects of vertical restraints*. This is, in effect, similar to an *externality* argument with respect to vertical restraints.³ The introduction of quality changes is independent of the overall welfare changes in the market.⁴ Any quality change, inspired by RPM or not, would be subject to the externality.

There are clear limitations to the argument concerning the behavior of inframarginal con-

2. Obviously, the welfare change is not ambiguous when price remains the same or falls when quality changes are introduced through RPM, as BF note.

3. Externalities are also created when heterogeneous consumers are assumed to be "efficient" or "inefficient" information gatherers in a world of costly information. Agents who become informed create a positive externality for the uninformed if their higher level of information keeps prices lower for all consumers [17]. However, in the context established by Comanor, the new product quality or the new product need not consist solely or mainly of "product with more information." Indeed the new quality or product may take many corporeal or non-corporeal forms.

4. The form of the quality change is irrelevant for purposes of our (or Comanor's) analysis. The change might include all feasible forms of product and service differentiation such as increased information from retailers or advertising, storage efficiencies, physical product quality improvements such as "freshness" or safety, on-site product demonstrations, or any one of a thousand other possibilities.



Figures 1(a) and 1(b).

sumers. While superficially plausible, the argument does not stand up well to even a reasonable amount of scrutiny. Consider Figures 1(a) and 1(b) as regards inframarginal consumer behavior.⁵ In Figure 1(a) a "Dupuit-Stigler" theory of quality-adjusted demand is shown. Product quality is held constant along any specific demand curve. A new quality dimension would (ordinarily) increase the marginal evaluations of consumers and the negative slope simply suggests the expected demand relation for any specific product. Comanor's (and Spence's) analysis assumes (within broad limits) that the price increase will have *no* effect on inframarginal consumers (as in Figure 1(b)). Here the manufacturer has latitude to raise prices with no effect on demand. But that effect must certainly contain limits. Inframarginal consumers—*already* earning consumer surplus from consuming the product—would have to experience a cost increase at least equal to the amount of consumer surplus in order to react.⁶ We assume, therefore, that an inelastic portion of the demand curve exists for the average inframarginal consumer. Over this range inframarginal consumers continue to purchase the same quantity of the product after the new product is introduced. In this extreme form of the individual demand curve, consumers who place little or no value on the new product characteristics will continue to purchase and will not substitute among competing products in the face of price increases or of net (but not maximum) reductions in consumer surplus.

The welfare effects are clear from the figures. Price increases under the behavioral characteristics suggested in Figure 1(b) reduce consumer surplus by an amount P_0P_1HG . But when inframarginal consumers exhibit behavior as depicted in Figure 1(a)—that is when they purchase the product in marginal fashion in a competitive environment—valuations are directly compared with additional costs. The rise in price could be accompanied, as in Figure 1(a) by a rise in valuation (represented by the shift in the demand curve from D_1 to D_2). A price increase from P_0 to P_1 means that the consumer will purchase more, less, or the same amount of the item depending on her calculation of the marginal gain and the marginal cost of the quality change.

If the buyer purchases marginally but places little or no value on the product quality changes,

5. A variation of this argument is presented in Boudreaux and Ekelund [5].

6. In effect, the demand curve of Figure 1(b) would end at some vertical price where consumer surplus was entirely eliminated.

the demand curve of Figure 1(a) remains invariant (at D_1) and the consumer reduces consumption of the product from q_0 to q_1 in response to the quality-change-induced price increase. Any industry offering an array of price-quality combinations for consumers would ensure some new welfare optima. In a competitive general equilibrium context, the consumer's behavior ensures that little or no loss occurs because she acquires approximately P_2P_1FCB in welfare from some alternative consumption.

In plainer language, the existence of a significant number of inframarginal consumers suggests that a good deal of consumer surplus exists. In a competitive industry, however, it is implausible to assume that the actions of any one producer can cause substantial diminution in consumer welfare. Other producers are available to pick up the slack. A marginal consumer might offer Sony a higher price for compact-disc players in exchange for greater on-site product demonstrations at retail outlets. Inframarginal consumers, in contrast, may care nothing for this service. If the retail price of Sony CD players rises as a result of Sony's decision to provide these on-site demonstrations, and if enough inframarginal consumers are harmed by Sony's decision, then other electronics manufacturers can profit by producing the particular product mix demanded by these inframarginal consumers. If no other firm can profit by producing a product mix that better appeals to the inframarginal consumers harmed by Sony's change in product quality, it must be the case that the number of inframarginal consumers is so small (or the magnitude of their loss so modest) that the costs of supplying a separate good for these inframarginal consumers exceeds the amounts that these consumers are willing to pay for a separately provided good.

It is only because of economies of scale in production or distribution that inframarginal consumers exist in the first place. With no economies of scale in production or distribution, then each consumer's specific level of product quality can and will be produced. Every producer instituting vertical restraints would have an incentive to continue satisfying the precise demands of each of its inframarginal consumers. Thus, when a firm fails to optimize the number of different varieties of a product that it produces (i.e., when a firm is not producing all those varieties the costs of which are less than the prices each group of consumers is willing to pay for its respective variety), then profit opportunities exist not only for rivals, but for the firm itself, to offer a more optimal selection of products.⁷

There are other problems with the inframarginal consumer argument. Under standard neo-classical analysis social loss (or gain) is measured as the sum of consumers and producers surplus. Given the logic of Figure 1(b), consumers placing little or no value on product improvements take a hit on their surplus equal to that amount—in this event consumers are made worse off because they do not consume marginally. But for social welfare to fall, at least some of the inframarginal consumer's loss must not be gained by anyone else. But this is clearly not so because the higher price on goods purchased by inframarginal consumers is a gain to producers. Of course, no marginal consumers are driven from the market. Further, inframarginal consumers—because they *are* inframarginal consumers—remain in the market. Thus, no social welfare loss occurs because the additional product costs borne by the inframarginal consumers profit the producers (who in turn may increase research, production, or marketing efforts to alter their products for still newer marginal consumers). When welfare distributions between consumers *and producers*

7. Put another way, competitive markets tend to minimize the proportion of inframarginal to marginal consumers. There will always be inframarginal consumers because of the costs of sorting consumers into ever-narrower demand groups, and of producing products tailored ever more precisely to each of these groups. But there are profits available to firms that cost-effectively transform formerly inframarginal consumers into marginal consumers.

are considered appropriate for policy, the case for anything other than per se legality of vertical restraints is weakened.

Where no freedom of entry exists, of course, manufacturers are better able to affect exchange conditions.⁸ Inframarginal consumers lacking substitutability in the final product market and are less able to react to vertical restrictions designed to improve the product for marginal consumers. Under horizontal monopoly and given an ability to accurately measure welfare changes between marginal and inframarginal consumers, on the one hand, and between consumers of all stripes and producers, on the other, social welfare might well be concluded to fall in consequence of some vertical restriction. But the root problem here is unrelated to vertical restrictions such as RPM. Rather, the problem is monopoly. And horizontal monopoly is subject to adjudication and prosecution under the Sherman and other antitrust laws.⁹

IV. Quality Changes And Inframarginal Consumers: Other Considerations

A more basic problem with the "inframarginal consumers" argument is that it proves too much. This argument applies *mutatis mutandis* to any quality or product change, whether or not made possible through vertical restraints.¹⁰ Vertical restraints are only a *means* of enabling manufacturers to change their product mix. Product changes are integral to the competitive process in which "large enough" groups of consumers direct product differentiation. Thus, consistency requires BF to cast their suspicions upon any product-quality change instituted by sellers. For example, when IBM stopped producing its initial line of double-floppy-disk personal computers and began producing its PC-II's, there were surely some consumers who would have preferred to pay the lower price for a new double-floppy rather than the higher price of the PC-II. When Safeway supermarket upscaled the appearance of its stores to attract more customers, some consumers no doubt valued the upscaled appearance of Safeway stores less than they valued lower prices. And when an electronics manufacturer improves the quality of its product in order to receive the stamp of approval from Underwriters Laboratory, some consumers who do not especially value safer electronic gear must nevertheless pay higher prices if they choose to continue purchasing goods from this manufacturer. Product-quality changes causing prices to be higher than otherwise are literally an everyday occurrence in market economies. There is nothing about product-quality changes instituted via vertical restraints making such changes more suspicious than such changes instituted in other ways.¹¹

8. The Spence model, for example, pertains explicitly to constraints placed by monopolists on downstream competitive suppliers of the final good.

9. The possibility of monopoly leveraging into related downstream markets also exists, but we do not consider these cases here. See Ordovery, Sykes, and Willig [15] or Kaserman and Mayo [10, 17-22] for analysis of some of the possibilities.

10. Comanor implicitly conceded this point when he notes that "to the extent that [product] alterations fail to reflect the preferences of inframarginal consumers, the interests of consumers in general may not be served" [7, 991]. White [20, 17-18] was the first to raise the point that Comanor's objections to the per se legality of producer-directed vertical restraints may be reduced to the old Chamberlinian-standard neoclassical debate over the efficiency and welfare effects of product differentiation. White, while generally accepting Comanor's distinction between marginal and inframarginal consumers, disputes Comanor's allegation that inframarginal consumers possess more information concerning the "product" than marginal consumers.

11. Imagine two manufacturers of consumer electronics. The first firm is fully vertically integrated into retailing, while the second owns no retail outlets. These two firms are otherwise identical. If economists do not question the welfare effects of the first firm's decision to upgrade its product quality (say, by offering greater on-site sales services), what

And note that what is true for improvements in product quality is equally true for decreases in product quality. A firm reducing both product quality and price—say, by no longer insisting on vertical restraints with retailers—causes ambiguous welfare effects according to the logic of BF's argument. Consumers who prefer the higher-quality, higher-price good are harmed. Only consumers who prefer the lower-priced, lower-quality good are benefited. Thus BF's skepticism about the introduction of vertical restraints applies equally to removal of existing restraints.

Pared to its essentials, the analysis of vertical restraints formalized by BF turns out to be an argument justifying agnosticism about the welfare effects of all changes in product quality accompanied by corresponding changes in price. (Again, vertical restraints are implicated only insofar as they are a means of begetting product-quality changes). This agnosticism about product-quality changes, however, is itself unjustified as long as markets are competitive. As pointed out above, if enough inframarginal consumers are harmed by a product-quality change inaugurated by firm A, then rival B can profit by producing the product mix demanded by these consumers.

Analysts are wrong who argue that "only the preferences of marginal consumers determine whether the product improvements will increase sales and manufacturers' profits" [7, 991]. A decentralized market economy tailors, as closely as is cost effective, particular products to particular groups of demanders. Consumers will not purchase goods or services of less value to them when sellers—either extant or waiting in the wings—are ready to sell goods promising a certain group of consumers more welfare bang for their bucks.

V. Conclusions

The model developed by Blair and Fesmire accurately depicts the policy conundrum raised in the theoretical literature on vertical restraints. Our purpose of this note has been to examine the arguments put forth by proponents of the theoretical possibility that vertical restraints might diminish rather than enhance net social welfare. This diminution would be due, as explained in the literature, to the behavior of inframarginal consumers vis-à-vis product or quality differences wrought by vertical integration.

We argue that this position—which is actually an argument against any change in product quality—loses force on several grounds. Under generally competitive conditions, inframarginal consumers are not captives of upstream (or of any!) sellers. If a sufficient number of consumers reduce demands or stop purchasing the good entirely, whatever the nature or purchase profile of the good, the producer will retract the offending quality change or the new product.¹² Moreover, new products will be introduced, through the device of vertical restraints or otherwise, when they are profitable in light of the behavior of all consumers, marginal and inframarginal. For these reasons, direction of welfare change from the introduction of vertical restraints (in a competitive setting) is less ambiguous than depicted in the literature [1, 1046].

If welfare maximization (the sum of consumer and producer surplus) is the aim of antitrust policy, then the argument for rule of reason or per se illegality rather than per se legality in dealing with RPM is largely ad hoc. Most generally, advocates of a rule of reason or per se illegality for

reason is there to question the same decision by the non-integrated firm? Alternatively, if economists question a product-quality change instituted by the non-integrated firm via vertical restraints, why not question such a change instituted by the integrated firm?

12. Coca-Cola realized quickly in 1985 that product differentiation that eliminated "Classic Coke" from sale was a non-optimal form of product differentiation. Other examples are easy to come by.

vertical restraints must also advocate similar legal treatment of product-quality changes unrelated to vertical restraints.

But even if discussion is confined to vertical restraints, the amounts of interbrand competition is a key element in assessing the efficiency consequences. Few empirical studies exist relating directly to this matter. However, in a recent and careful investigation of the *prohibition* of exclusive territories for beer distributors in the state of Indiana, investigators found that "Indiana's statutory proscription of exclusive territories has significantly and permanently reduced the equilibrium quantity of beer sold in Indiana by five percent per year" and that "the results are at odds with those who argue that exclusive territories are primarily anti-competitive" [18, 23].¹³ Any caveat that inframarginal consumers are damaged by vertical restraints is misplaced unless monopoly exists at one or another level of distribution. Monopoly might be a real problem in certain markets, but it is unrelated to the efficiency argument or welfare optima under RPM or non-price vertical restraints. Further, such monopoly is fully prosecutable under existing antitrust laws.

Courts have available one of only three possible options for treating vertical restraints: (1) *per se* illegality, (2) a rule of reason under which courts sit in judgment of the welfare effects of each challenged instance of vertical restraints, and (3) *per se* legality. BF correctly recognize that enforcement agencies and courts are ill-equipped to assess the detailed welfare consequences of product-quality changes sponsored by vertical restraints. But, rather mysteriously, BF nevertheless conclude that the economic case for *per se* legality of vertical restraints is equally weak.

BF are inappropriately cautious. If it is conceded (as BF concede) that vertical restraints are too often beneficial to justify *per se* illegality, then the issue boils down to a choice between empowering courts and administrative agencies to sit in judgment on the appropriateness of allowing firms to alter their product quality via vertical restraints, or letting the market make these judgments. Competitive markets harbor incentives for firms to supply products matching consumer demands as closely as possible. Thus, there is little reason to fear that inframarginal consumers' demands for particular product options will remain unsatisfied when the benefits to inframarginal consumers of having these demands met exceed the costs of meeting them. Because there is good reason to suppose that the market will generally get it right, and little reason to trust case-by-case assessments of courts, a rule of *per se* legality for vertical restraints is clearly justified.

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13. Indiana is the one and only state that prohibits exclusive territories in beer distribution. In the case analyzed by Sass and Saurman [18], a good deal of interbrand competition existed both before and after the prohibition.