WHY SHOULD MANUFACTURERS WANT FAIR TRADE?

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I. Introduction

A long-standing puzzle to economists is that some manufacturers prefer that their products are sold at not less than "fair trade" retail prices.[1] Before the courts upset the legal status of resale price maintenance, some of these manufacturers spent millions to prevent distributors from selling their products below the list price. The manufacturers' interests seem to be best served when distributors resell their products under such competitive conditions as may exist at the level of distribution and at the lowest prices resulting from that competition. If manufacturers set a floor to the resale price then they also set a ceiling to their sales and thus apparently support a policy that runs counter to their own self-interest. Let the manufacturers fix a price at the factory gate at which all distributors may buy the product. Would not the manufacturers' sales and profits be greater the lower is the price at which distributors resell their products to consumers? If so, then what explains the strong desire of some manufacturers to prevent distributors from

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[1] One of the first economists to recognize that manufacturers' endorsement of resale price maintenance is puzzling is T. H. Silcock, Some Problems of Price Maintenance 48 Econ. J. 42–51 (1938). He gives three reasons for their endorsement of this policy: by fixing a minimum retail price they reduce the consumers' incentive to shop around which would expose them to the temptation of possibly buying some other product; the manufacturer may obtain more services from retailers which would increase sales of his product; the manufacturer may obtain a wider distribution of his product. His analysis is quite perceptive though incomplete. Even earlier Professor Taussig noted the paradox. See Price Maintenance, 4 Am. Econ. Rev. 170–84 (Supp. 1916). One of his explanations of resale price maintenance assumes some degree of "irrational" consumer behavior. If consumers associate price and quality then he argues that reductions in the retail price may reduce sales because consumers believe the product quality is deteriorated. Of course the coercion of manufacturers into setting resale prices by a retail cartel is a different and easily comprehensible phenomenon: see B. S. Yamey, The Economics of Resale Price Maintenance (1954). This is also the main explanation of the Federal Trade Commission in its 1945 Report on Resale Price Maintenance.

reselling their product at prices below the level set by the manufacturers? The purpose of this paper is to examine some arguments appropriate to different market structures that explain why some manufacturers may impose resale price maintenance on distributors.[2]

We retain all of the essential elements of the puzzle if for simplicity we suppose that manufacturers sell their product to retailers who resell it to final consumers thus ignoring the other stages of distribution. Of course, the manufacturers need concern themselves with imposing resale price maintenance on the firms engaged in distribution only if they do not themselves deal directly with the consumers of their products. For instance, a firm may own retail outlets and its salaried employees may sell its product to final users: by choosing this course it can avoid any legal obstacles in the way of resale price maintenance. However, the cost disadvantages of such an arrangement may outweigh the advantages it thinks to gain by exercising direct control over the retail price. Therefore, the need for resale price maintenance arises only if there is separate ownership of the producing and distributing firms.[3]

Any manufacturer who can sell as much of the product to retailers as he pleases without affecting its price at the manufacturing level is manifestly foolish if he attempts to force resale price maintenance on retailers. What is more to the point, a manufacturer in a competitive industry could not control the price at the manufacturing level by changing his rate of output and surely could not affect the price at the retail level by so doing. Hence a necessary condition to a manufacturer's use of resale price maintenance is that he must possess some degree of monopoly control over the price of the product because his product is differentiated in economically relevant respects from competing products.

Some British data are consistent with the hypothesis that only manufacturers enjoying some degree of monopoly power use resale price maintenance. Assuming the degree of concentration of production crudely measures manufacturers' monopoly power, the data of Table 1 indicate that the prevalence of resale price maintenance by consumer commodities is associated with manufacturing monopoly. For example, of the commodities for

[2] Manufacturers have sold a number of products under resale price maintenance agreements. Examples are Victor and Edison Talking Machines, Ford and Packard Motor Cars, Welch's Grape Juice, Kellogg's Corn Flakes, B.V.D.'s, Ingersoll and Hamilton Watches, Beechnut Products, Bissell carpet sweepers, and Waterman pens. W. S. Bowman, Jr., Prerequisites and Effects of Resale Price Maintenance, 22 U. Chi. Law Rev. 825, 833–35 (1955). Another long list of products appears in Report of the Federal Trade Commission on Resale Price Maintenance 498 (1945).

[3] Even though a manufacturer may strongly desire resale price maintenance, the cost of enforcement may be too great to make this a profitable policy. For example, retailers offer trade-in allowances on some products. Manufacturers who maintain the retail prices of such products need also to cope with the difficult problem of regulating trade-in allowances.

which the three leading producers together account for between 50 and 60 per cent of industry's employment, nine are sold with and two are sold without the aid of resale price maintenance. Unfortunately, there are apparently no similar data for the United States.

Although monopoly control by manufacturers is a sine qua non to their espousal of resale price maintenance, matters stand on a different footing with regard to the presence or absence of monopoly power of retailers.

TABLE 1

PRICE MAINTENANCE OF CONSUMER GOODS IN GREAT BRITAIN, 1938

Degree of Concentration of Production* (Per Cent)	No. of Commodities Price Maintained†	
	Insignificant or Non-existent	Significant (Half or More of the Commodity Was Price Maintained)
0–10	24	0
10–20	14	3
20–30	3	7
30–40	0	7
40–50	1	5
50–60	2	9
60–70	1	7
70–80	0	4
80–90	3‡	3§
90–100	0	0
Total	48	45

Source: James B. Jeffreys, The Distribution of Consumer Goods: A Factual Study of Methods and Costs in the United Kingdom in 1938, Table 7, pp. 46–48 (1950).

* The degree of concentration of production is the ratio of the employment in the three largest units to the total number employed in the production of the commodity.

† The list of commodities includes almost all consumer goods. Some of the commodities are price maintained at the instigation of the PATA—the British retail druggists' association.

‡ The three commodities are sugar, wallpaper, and linoleum.

§ The three commodities are salt, petrol (gasoline), and vacuum cleaners.

Under some circumstances manufacturers may employ resale price maintenance even if there is perfect competition among retailers. I describe these circumstances in the sections on the special service argument and the cartel argument. Most explanations of resale price maintenance turn on attempts by retailers to form associations that would enable them to eliminate price competition among themselves and bend manufacturers to their will. Such explanations are compatible with the existence of perfect competition among the manufacturers and they require that retailers, though powerless singly, collectively have monopoly power. The following arguments apply when retailers individually are either monopolists or are in perfect competition.

II. The Service Argument[4]

Suppose sales at the retail level depend both on retail prices and on the services the retailers provide jointly with the product. Specifically, assume that the quantity sold at the retail level varies inversely with retail prices and directly with the amount of services the retailers provide jointly with the product.

A diagram is helpful. D_0 is the demand schedule for the product at the retail level when retailers offer S_0 of services. If they offer more services, $S_1 > S_0$, the demand shifts to the right to D_1 (see Fig. 1). For a given quantity OQ, $P_1 - P_0$ equals the price per unit of the product that consumers are willing to pay for an increment in services, $S_1 - S_0$, that is provided jointly with the product.

We must understand these retailers' services to be specific to the commodity and unrelated to the retailers' methods of generally doing business. If, on the contrary, the retailers' general business methods are at issue such as whether they provide their customers with a pleasant atmosphere, delivery, credit and the like then there is no need for the protection of resale price maintenance on the particular commodity to be sold jointly with these services.

To convince ourselves of the latter point let us assume it to be false. That is, suppose that retailers of a certain type may only be induced to handle the product if the manufacturer sets a minimum retail price. This implies that in the absence of resale price maintenance consumers prefer to purchase the product from those retailers who provide less services and sell goods at lower prices. It is only by preventing such retailers from selling the goods in question at a lower price that the manufacturer is able to have his product sold by the retailers who provide more services. Therefore, if resale price maintenance is necessary to get the product sold in, say, fancy shops then consumers really

[4] Bowman analyzes the service argument in terms of two kinds of markets, service and non-service. His argument, it seems to me, does not fully recognize the point that the services are special to the product and are not related to the kinds of services connected with the distributors' methods of business. See W. S. Bowman, Jr., Resale Price Maintenance, 22 U. Chi. Law Rev. 825, 840–43 (1955). Yamey does recognize the point that the services are special to the product. He produces essentially the same argument as mine and offers it in explanation of book publishers' support of resale price maintenance for their product. See Yamey, Economics of Resale Price Maintenance, 62–68 (1954).

". . . where the sale depends upon demonstration or service on the part of the distributor, especially when the distributor has substitute items in stock, the injury to the manufacturer is probable. Good examples of this are plumbing equipment and automobiles, for in these cases an important role is played by the distributor in leading the customer to a final decision. Scarcely inferior to the articles mentioned in this respect are kodaks, certain toilet articles, medicines—at least at certain stages in their distribution—and mechanical contrivances such as radios, victrolas, and talking machines. In all these instances the likelihood of a sale depends in no small measure upon the distributor himself." E. R. A. Seligman and R. A. Love, Price Cutting and Price Maintenance, 193 (1932). This quotation shows that some aspects of the special service argument have long been recognized.

prefer to buy the good at low prices in plain stores. Moreover, under these circumstances, since resale price maintenance must increase the average retail price, it tends to reduce total retail sales of the product. Therefore, no wise manufacturer would adopt a policy of retail price maintenance merely to get competing stores of different kinds to sell his product.

Clearly, retailers of all kinds in competition with each other sell many products not price maintained jointly with whatever services they provide. They will not deprive their customers of these services on any sale regardless of whether or not the product in question is protected by a resale price main-

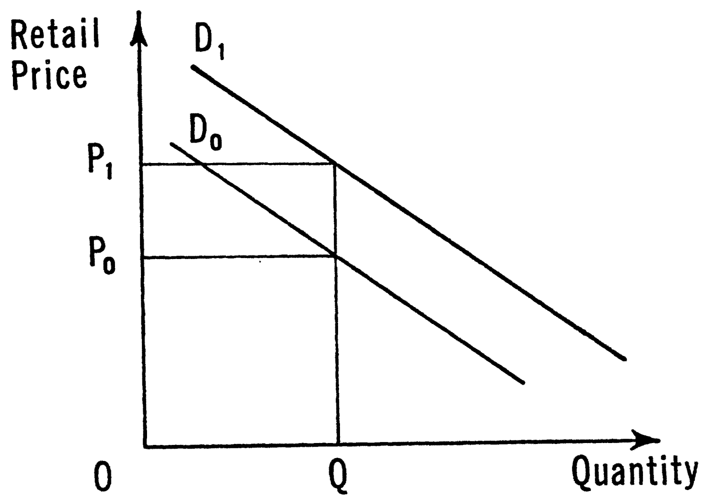

FIG. 1

tenance agreement with the manufacturer. In the absence of resale price maintenance we can expect many kinds of retailers offering all kinds of different services to sell the product at prices that differ by the cost of providing these services. The fact that many retailers offer different kinds and combinations of services is a reflection of the diversity of consumers' tastes. Inter-store price differentials that equal the difference in the costs of providing services of different kinds and amounts is a reflection of the competition among the retailers. Resale price maintenance is intended to alter these normal price differentials that we may expect for a product that is sold by many different kinds of retailers.[5]

[5] The argument in the text assumes perfect competition in retailing. However, if individual retailers are monopolists the argument needs modification. By protecting the minimum mark-up the manufacturer offers retailers more inducement to handle the product. This results in wider retail distribution, which may increase retail sales; simultaneously the average retail price is somewhat higher and that tends to decrease retail sales. A wise manu-

However, a product that is protected by a resale price maintenance agreement is one for which the minimum gross mark-up—the difference between the retail and the manufacture price—is fixed. Because of this, the manufacturer hopes to induce retailers to single out his product for *special* pre-sale treatment. A cogent example of a special service is pre-sale demonstration of the product by retailers. Thus the amount of these special retailers' services that are provided jointly with the physical product is expected by the manufacturer to vary directly with the retailers' remuneration from the sales of that product.

If at some mark-up all the retailers provide the *same* amount of special services jointly with the product then the manufacturer, seemingly, need not maintain a minimum retail price. By choosing appropriately the price at which he is willing to sell his product to the retailers he can maximize his profits and avoid concerning himself with the level of the retail price, leaving that to be freely determined by the competition among the retailers. Therefore, assume for the moment that the manufacturer does not set a floor to the retail price. He sells his product to retailers at a low enough price to induce them all to provide the same amount of special services. But, under these circumstances, do all retailers have incentives to carry out the manufacturer's wishes?

Since the services provided are, by hypothesis, special, some retailers have good reason not to provide these special services and offer to sell the product at lower prices. They reduce their prices because they avoid the additional cost of the special services. If some retailers do provide these services and ask for a corespondingly higher price whereas others do not provide the services and offer to sell the product to consumers at a lower price then an unstable situation emerges. Sales are diverted from the retailers who do provide the special services at the higher price to the retailers who do not provide the special services and offer to sell the product at the lower price. The mechanism is simple. A customer, because of the special services provided by one retailer, is persuaded to buy the product. But he purchases the product from another paying the latter a lower price. In this way the retailers who do not provide the special services get a free ride at the expense of those who have convinced consumers to buy the product.

As a result few or none of the retailers offer the special services the manufacturer thinks necessary to sell his product. If the manufacturer is correct in his belief that point-of-purchase services increase the demand for his product then because less than the optimal amount of services are provided his sales decrease. He can prevent the diversion of sales from one kind of retailer to another if he removes the incentive to diversion. He accomplishes this by

facturer weighs the net effect of these opposing forces and adopts resale price maintenance only if greater net revenue results. In the rest of the paper, the argument is valid irrespective of the state of retailing competition.

establishing a minimum retail price that guarantees a minimum gross mark-up. Therefore retailers are forced to compete by providing special services with the product and not by reducing the retail price.[6]

Although effective resale price maintenance thus prevents diversion, it may permit retailers, who are able to sell the product without providing the special services at the maintained price, to obtain extraordinary profits. They can do so if the manufacturer is mistaken in his belief that he needs special services to sell his product. None will be offered by retailers all of whom can get profits equal to the cost of these special services provided the manufacturer fixes a minimum retail price. For example, if in the course of time consumers become so won over to a product or so familiar with it that costly special persuasion by retailers becomes an unnecessary inducement to purchase it, the manufacturer will discover that he need not maintain the retail price and will rationally abandon his fair trade policy.

The argument explaining the rationale for resale price maintenance is incomplete because it fails to consider the manufacturer's alternatives to the policy that could apparently obtain the same effects. Perhaps the most promising is this. Let the manufacturer arrange with retailers to have the special services sold separately to potential customers. In this way a customer may buy the product without buying the special services or vice versa. For example, imagine that retailers would charge customers a fee for demonstrating the product to them. In this way the problem of free riding by other retailers is eliminated and the special services are indeed provided those customers who wish to pay for them. Although this scheme seems to do away with the difficulties manufacturers face by adopting resale price maintenance it has formidable complications of its own.

The main complication is the necessity of devising a method of charging customers for the special services they obtain. If all the customers want the same amount of special services then a single price equal to the marginal cost of these services is sufficient. Indeed under this assumption all retailers would offer the same amount of special services and the manufacturer would find resale price maintenance unnecessary.

For some commodities, however, consumers surely differ in their desire for special services and it may be very costly to use a system of marginal cost pricing whereby each customer pays a price equal to the marginal cost of the services he obtains. One reason for this may be that the extent of the market

[6] Suppose an undifferentiated product made under competitive manufacturing conditions is of such a nature that the provision of special retailing services is thought to facilitate sales. Were a single manufacturer to adopt resale price maintenance to obtain the provision of the optimal amount of special services then his scheme would succumb to the same kind of forces as are described in the text. The manufacturers not adopting retail price maintenance may benefit from the special services he induces and obtain a free ride at his expense. Only if the group collectively adopts resale price maintenance may they ensure the provision of the optimal amount of special services.

for the product is too limited to make feasible the specialization needed for a system of marginal cost pricing. Suppose, for example, that one-third of the customers want no special services, one-third want special services that cost $6 and one-third want special services that cost $12. Assume that these special services are sold separately and that the price of the product is $100. If marginal cost pricing of the services is too cumbersome or unattainable and all customers pay a flat fee for special services regardless of the amount they obtain then those who want none purchase none and those who want an amount that costs $12 pay $12. But no single price equal to the average cost of the services suffices to induce those who wish to purchase $6 worth to buy any. Or if the consumer alternatives are no special services or $6-worth then some part of the demand for services remains unsatisfied because those desiring $12-worth obtain half as much. Thus because customers differ in the amount of special services they desire and because marginal cost pricing of these services is impractical, the manufacturer finds that consumers purchase less than the optimal amount even though the services are available separately from the product.

There is another alternative. The special service argument shows that the need for resale price maintenance arises when not all the retailers provide the same amount of special services and all may buy the product from the manufacturer at the same price. Hence those who do not provide the services get a profit equal to the cost of these special services they do not provide only if they pay the manufacturer the same price for the product as those retailers who do provide the special services. This suggests that the manufacturer should not charge all retailers the same price for the product to induce them to promote sales by guaranteeing a minimum gross mark-up. That is to say, he could charge retailers different prices according as they do or do not provide the special services. Let those who agree to provide special services jointly with the product pay a lower price at the factory gate than those who do not provide the special services. If he establishes the proper price differentials for his product then he can, apparently, obtain the same result as by imposing resale price maintenance on the retailers.

In addition, the manufacturer needs to prevent those retailers who are ostensibly willing to push his product thereby incurring greater costs, from reselling his product to other retailers who, because they are unwilling to push the product, may obtain it from the manufacturer but only at a higher price. That is, the manufacturer needs to prevent trans-shipments of his product from the retailers who pay him the lower price to those who pay him the higher price. If he cannot prevent trans-shipments among retailers then he also cannot prevent diversion of consumers' purchases among retailers. Because some retailers bootleg his product to others who resell it without special services at lower retail prices, the same mechanism of free riding at the expense of retailers who do provide special services and charge higher prices comes into play. Therefore, the manufacturer either needs to prevent sales among retailers, if he sells his product to them at different prices, or, if all the retailers pay him the same price, he needs to prevent price cutting to induce them to offer special services jointly with his product.

Since there may be a fatal objection to selling the product at different prices to different retailers, the manufacturer may hope to accomplish the same thing by paying retailers directly an amount equal to the cost of the special services they provide. He would need to check the performance of the retailers to be sure that they actually provide these requisite services. Resale price maintenance may better serve the manufacturer's interest because the retailers are compensated for providing special services only to the extent of their sales. Balanced against this advantage of price maintenance is the cost of its enforcement. It seems likely, however, that it is easier to police violations of minimum prices than to survey retailers to see that they do indeed provide the special services and do not simply fritter away the direct payments. But the most compelling point is that direct payment by the manufacturer to retailers who provide special services is equivalent to selling the services separately to the consumers and both are feasbile only if marginal cost pricing of the special services is economic.

The manufacturer has still another alternative to resale price maintenance. He may refuse to sell his product to any retailer who does not provide the requisite special services. A manufacturer could not logically adopt this policy uness he arranges somehow to remunerate those retailers he approves for providing the special services.[7] Therefore, if he does carefully select retailers who will distribute his product then he must also devise a system of paying them that does not suffer from the same objections one makes to direct payment to retailers.[8]

The special service argument has several implications. These have to do

[7] Retailers not approved by the manufacturer might buy the product from those who are approved. The cost of policing a refusal to sell policy includes the cost of detecting and preventing such sales among retailers.

[8] Two other points are worth mentioning. The special service argument does not imply that the rise of discount houses was a reaction to widespread use of resale price maintenance. A discount house offers its customers a less costly bundle of services and therefore lower prices. However, these services are typically unrelated to particular commodities and are not special according to the usage in this paper. They offer no free credit or charge accounts, have a less elegant decor, fewer sales people per customer, and the like. Their success is to be attributed to consumers' demand for this type of retailing rather than to their alleged erosion of price maintenance. This conclusion is buttressed by the fact that discount houses carry many goods that are not price maintained. Manufacturers who sell their products both under their own label and to retailers who resell them under their own private labels have no incentive to adopt resale price maintenance. This is manifestly the case if the manufacturers are in competitive industries. Even if the manufacturer is a monopolist, sales of the same product under different labels is symptomatic of price discrimination and this technique leads to a more efficient separation of markets than would be obtained by the use of resale price maintenance (see p. 104 infra).

primarily with the nature of the product. Only branded products that are unfamiliar to the mass of consumers are price maintenance candidates on this argument.[9] To gain wide acceptance for their products, manufacturers often direct national advertising at the final consumers. However, if they choose to maintain minimum retail prices then they believe that such advertising by itself is insufficiently effective to persuade consumers of the merits of their products and that the retailers' personal sales efforts are a valuable adjunct. Thus resale price maintenance substitutes to some extent for impersonal national advertising. Since part of the sales expense of nationally advertised products not price maintained is borne by the manufacturers, we anticipate on that account that the gross mark-up of such goods is less than that of price-maintained commodities.

Pursuing this line somewhat further, recall that prior to the 1920's national advertising was limited to the newspapers and magazines. First radio and then televison gave rise to the great technological change in advertsing. Hence prior to the 1920's manufacturers had fewer alternatives to the use of the retailers' services. We might on this account expect a weakening desire by manufacturers for the special services of the retailers purchased by means of resale price maintenance. However, it is hard to establish that there was a secular withdrawal from resale price maintenance by manufacturers, and even if it could be demonstrated it would be subject to alternative explanations. For example, during this period the courts continued to place obstacles in the way of price maintenance.

New branded products are obviously unfamiliar to the mass of consumers and are, thereby, candidates for resale price maintenance. If the manufacturer wishes the special services of retailers, he may set a floor to the retail price of this new product. After a new product has gained wide consumer acceptance, its producer no longer needs to maintain a minimum retail price. We may expect to observe the resale price maintenance agreements of new products to persist for as long as it takes the product to become familiar to consumers. Electrical appliances are a case in point. Manufacturers introducing new appliances often impose resale price maintenance on the distributors to induce them to offer special services.

Old branded products purchased infrequently by relatively few households may also be logical candidates for resale price maintenance agreements. Such products are in a sense new to the mass of consumers and may never gain wide acceptance. Because they are unfamiliar, the manufacturer of such products may find retailers' point-of-purchase special services particularly

[9] "Where, for instance, a manufacturer of well-known items brings out an entirely new product he may try, rather than resort to the expensive expedient of far-reaching advertising, to follow a policy of price maintenance, utilizing for this purpose his long established name in conjunction with a liberal margin granted to the retailer in order to secure his close cooperation." Seligman and Love, Price Cutting and Price Maintenance, 209 (1932).

valuable. For example, bows and arrows are very old products bought infrequently by relatively few people. Potential buyers are probably susceptible to the persuasive efforts of those retailers who sell this product, and if the manufacturers of bows and arrows have some degree of monopoly power, I would not be surprised to learn that there is a minimum retail price schedule for this product. In fact, manufacturers of sporting goods often use resale price maintenance.

Drug manufacturers making differentiated products over which they have some degree of monopoly power may strongly favor resale price maintenance because consumers of such articles rely heavily on the druggists' advice. Resale price maintenance is an effective way for a manufacturer to remunerate druggists for these special services and insure that they will be forthcoming. It also happens that retail druggists' associations are not averse to price maintenance even for those commodities made by manufacturers who would gladly have them sold at competitive retail prices.

The special service argument explains why one manufacturer may want to establish minimum retail prices but it cannot explain why a group of competing manufacturers would favor this policy. The next section gives a rationale for a group of manufacturers who adopt resale price maintenance.

III. The Cartel Argument

The cartel argument analyzes the particular problems facing a combination of manufacturers that make a substantial proportion of its sales via competing distributors to households. This is in contrast to a cartel of manufacturers making an intermediate good, that is, one which is ultimately purchased primarily by other manufacturing firms.

A cartel like a monopoly needs to choose a rate of output or, equivalently, a price that maximizes profits. But unlike a monopoly a cartel faces special difficulties. Because their members have conflicting interests, cartels are fragile organizations. Each member of a cartel wants the other members to abide by the terms of the cartel agreement but has powerful incentives to violate these terms in the pursuit of its self-interest. What rules must the members of a cartel establish to ensure compliance and render the cartel a sturdy instrument that will extract monopoly profits for the benefit of its membership?

Obviously the cartel members must agree on the price at which they are willing to sell the product to distributors. But if any member of the combination offers distributors the product at a price somewhat lower than that agreed-upon, he may increase his sales and reduce the profits of the other cartel members. If the cartel rules impose penalties on price-cutters that compensate the non-price-cutters for their loss of profits, these penalties must impose costs on the price-cutters greater than their increased profits. That is, the cartel needs rules that nip in the bud attempts to spoil the market for all. One such rule is resale price maintenance. Thus no retailers, for example, may sell the product to consumers at a price lower than that agreed upon. How does resale price maintenance preserve the cartel's monopoly profits?

Let a member of the cartel try to increase sales by giving retailers secret price concessions. Since the retailers are unable openly to reduce the price at which they can sell the product to final consumers, they manifestly are deprived of the most powerful instrument to increase sales to customers. Therefore, a manufacturer who would induce retailers to increase their purchases from him by offering them lower prices loses profits to no avail. Nonetheless, a secret concession may give an advantage to a manufacturer. If retailers sell a number of brands of the product—brands of the cartel members—they may be induced to single out the brand of some manufacturer for special treatment if they are bribed to do so because of getting a secret price concession from that manufacturer.

One way of preventing this is for the members of the cartel to agree that distributors may handle only a single brand. Thus each distributor becomes an exclusive dealer in one brand and cannot favor one manufacturer at the expense of another.[10]

A dealer who is given a secret price cut by a manufacturer may in turn attempt to increase sales to final consumers by granting them special terms of sale that have the effect of price concessions. For example, customers may be offered favorable credit terms, free delivery service, less than the prevailing price on a tied article, and the like. Insofar as possible the members of the cartel must agree on terms of sale that outlaw any device that has the effect of allowing retailers to cut prices.

A resourceful member of the cartel may try to increase his sales in still another way. He may try to win away the retailers handling the product made by other members of the cartel to his own brand. Secret price concessions to retailers might accomplish such changes in allegiance. The rules of the cartel must guard against this eventuality. They must stipulate that a retailer handling the brand of one cartel member may not drop it in order to replace it by the brand of another cartel member. Such a rule prevents the members of the combination from competing for distributors.

[10] B. S. Yamey interprets "exclusive dealing" coupled with resale price maintenance quite differently. He sees the former as a valuable concession from the retailer to the manufacturer and the latter as the reverse. Thus the two together are a kind of quid pro quo arrangement whereby distributors and manufacturers form a vertical cartel. B. S. Yamey, The Economics of Resale Price Maintenance, 34–35 (1954). He does, however, recognize that "Resale price maintenance may be an indispensable, or at least a valuable, adjunct to formal or tacit agreement among a group of manufacturers," at 18. It seems to me that Yamey misses the the essential point, namely that exclusive dealing and resale price maintenance are both needed to make effective the collusion among the manufacturers. See also pp. 19–22.

Bowman also analyzes the quid pro quo argument. W. S. Bowman, Jr., Prerequisites and Effects of Resale Price Maintenance, 22 U. Chi. Law Rev. 825, 838–39, 844–48 (1955). His description of the marketing of spark plugs and enameled iron ware indicates that the cartel argument may apply there.

The viability of a cartel requires other terms of agreement. Clearly the members must agree on the same retail price schedule. Moreover, they must agree on the same mark-up. All the other terms of sale between distributors and members of the combination must be the same so that no distributor has a pecuniary incentive for preferring one manufacturer over another. For a cartel to provide for every partciular eventuality threatening its existence is impractical if not impossible. For example, a manufacturer may attempt to induce new retailers, who have never before handled his product, to choose his brand and secretly offer them lower prices in compensation. If the cartel has a rule that imposes penalties on any of its members who exceed agreed upon market shares then these penalties serve as catchalls designd to guard against this tactic—secret price concessions to new distributors by those members of the cartel who wish to exceed their sales quotas—as well as other competitive tactics a manufacturer might employ in conjunction with cooperating retailers that would have the effect of spoiling the common interest of the cartel.

That a combination of manufacturers may practice price maintenance (impose the same minimum prices on each other) is easily understandable and indeed is a common cartel feature.[11] It is the use of *resale* price maintenance by a cartel that presents interesting problems. Typically price maintenance agreements cover so-called industrial products. Such industrial products are purchased by other firms who utilize them in their manufacturing processes to make other goods. Obviously in those cases resale price maintenance would serve to combine manufacturers at another stage of production into a cartel.[12] Although such vertical cartels undoubtedly exist, they must be less common than the kind described above, legal difficulties aside, because the number of conspirators necessary for the combination is typically too great to allow viability.

[11] There are numerous cartels of manufacturers embodying price maintenance agreements. Some examples are the following: sanitary pottery, a combination of 23 corporations producing 82 per cent of the output of this product, United States v. Trenton Potteries Co., 273 U.S. 392 (1927); hardboard producers, United States v. Masonite Corp., 316 U.S. 265 (1942); producers of certain kinds of electrical fuses, United States v. Line Material Co., 333 U.S. 287 (1948); makers of gypsum wallboard, United States v. United States Gypsum Co., 333 U.S. 364 (1948); and wrinkle finish varnish, enamel, and paint, a combination of virtually all the producers of this product, United States v. New Wrinkle, 342 U.S. 371 (1952).

[12] Perhaps the most interesting example is ethyl compound, a chemical product added to gasoline to increase the octane rating. The patent on ethyl was jointly owned by DuPont and Esso who licensed refiners to make ethyl gasoline. Ethyl gasoline was to be sold at a fixed price differential above the average net sales prices of the licensee's best non-premium grade of commercial gasoline. The licensed refiners produced 88 per cent of all the gasoline and 70 per cent of all the ethyl gasoline. Ethical (non-price cutting) jobbers were licensed to handle ethyl gasoline and 11,000 of the 12,000 gasoline jobbers were so licensed. Thus the owners of the patented ethyl compound formed most of the gasoline refiners into a cartel. Moreover, jobbers and retailers as a common practice anteceding ethyl compound handled one brand of gasoline exclusively. Ethyl Gasoline Corp. v. United States, 309 U.S. 436 (1940).

When we see all the contingencies a cartel must guard against we are struck by the implicit rigidities in the face of changing economic conditions that compliance with the rules of the cartel require. New price schedules appropriate to new conditions must be arrived at in concert as the result of committee deliberation. Though monopolies may respond sluggishly to a changing environment for the same reasons as do cartels, the reaction speed of a cartel which turns on the deliberations among the sovereign members must be even slower. Even so the cartel reward is a monopoly profit diminished to the extent that deliberations to change prices lag behind events, but if the cartel survives we must conclude that the game is worth the candle.

The cartel argument is admirably illustrated by the resale price maintenance of light bulbs.[13] The story of light bulbs is the subject of the next section.

IV. Light Bulbs and Resale Price Maintenance

The resale price maintenance of light bulbs was a major issue in a famous anti-trust case in 1926—the United States v. General Electric, Westinghouse, and others.[14] It is remarkable that the system the defendants devised for distributing light bulbs fits the cartel argument of the preceding section in every respect.

In 1906 the General Electric Company acquired exclusive United States rights to a number of patents governing the production of tungsten filament incandescent lamps. It "introduced its tungsten filament lamps into the United States late in 1907, under exclusive patent rights for the United States purchased in 1906 for $100,000 from the German Welsbach Company."[15] It acquired two other important patent applications and inventions governing the production of this type of light bulb in 1909. In 1911 GE introduced ductile tungsten filament incandescent lamps to the American market.[16]

[13] Many of the features of the light bulb combination are foreshadowed in the cartel among producers of enameled iron ware formed around 1909. There were 16 members in that cartel producing 85 per cent of the total output. Standard Sanitary Mfg. Co. owned the key patent and licensed the others under it. Minimum prices were established by a committee of 6, including the patent owner (whose market share was 50 per cent), who initiated price changes subject to the approval of a majority of the other 5 committee members. Ninety per cent of all the jobbers in the trade were licensed by the manufacturer and resale price maintenance imposed on them. Such jobbers were prohibited from dealing with unlicensed manufacturers, except with express written permission of the licensor. To aid in compliance, licensees paid royalties rebatable in part on condition of adherence to the license terms. Exclusive dealing by jobbers is not mentioned in the Supreme Court's opinion. Standard Sanitary Mfg. Co. v. United States, 226 U.S. 20 (1912).

[14] United States v. General Elec. Co., 272 U.S. 476 (1926). Although this case has become a classic textbook example, see for instance, C. Wilcox, Public Policies toward Business, 157–58, 412 (1955), no one seems to have offered the interpretation of the case which follows.

[15] A. A. Bright, Jr., The Electric Lamp Industry, 190, 192 (1949).

[16] *Id.* at 192–98.

In 1912 the Westinghouse Electric Company entered into a new license agreement with General Electric. The agreement contained these important provisions regarding royalties:

> The royalty payable on tungsten filament lamps sold and shipped for use in domestic territory during the period of three years from the first day of January, 1912 shall be 2% of the Licensee's net sales of said lamps.
>
> If, in the year beginning with the expiration of said period, or in any subsequent year, the Licensee's net sales of tungsten filament lamps, for use in domestic territory, amount to 15% (changed to 17.25% in 1919) or less of the aggregate net sales of such tungsten filament lamps by the Licensor and the Licensee for use in said territory in the said period, the royalty payable on tungsten filament lamps shall be 2% of the Licensee's net sales of said lamps; but if the Licensee's net sales exceed 15% of the said aggregate net sales, the royalty shall be 2% of the Licensee's net sales up to and including said 15% and shall be 10% of the excess of said net sales over said 15%.[17]

Similar license agreements were entered into between General Electric and other United States producers of light bulbs.[18] In 1923 General Electric and its licensed manufacturers accounted for 86% of total sales of light bulbs in the United States.[19] Based on this evidence it is plausible to regard General Electric and its licensed manufacturers as forming a cartel. Yet there seems available a simpler hypothesis. May we not regard General Electric as a monopolist by virtue of its ownership of key patents which it permits others to use in return for the payment of royalties? Cartel implies greater weakness and appears wrongly applied in this context.

Certainly with regard to the Westinghouse Electric Company there is little doubt that General Electric had a formidable rival. In its own right Westinghouse owned valuable and important patents and had an active research laboratory.[20]

Because of this General Electric could not feel secure in its position of acknowledged power as of 1912 and it needed to come to terms with a danger-

[17] Record, p. 118, United States v. General Elec. Co., 272 U.S. 476 (1926).

[18] The so-called "B" licenses granted manufacturers other than Westinghouse differed in some important respects from the Westinghouse license. Although "B" licensees could establish their own prices and terms of sale, they could not use the Mazda trademark (used on General Electric and Westinghouse products), they paid GE a higher royalty rate (3 per cent) than did Westinghouse (2 per cent shortly reduced to 1 per cent), their production quotas were small and they could make only few types of incandescent lamps, Bright, op. cit. supra n. 15 at 238, 240–43. Although the agreement between GE and Westinghouse benefitted the small licensed manufacturers, their ability to compete was curtailed by the terms of the "B" licenses. The cartel argument of section III applies to the GE-Westinghouse agreement.

[19] Record, p. 6, United States v. General Elec. Co., 272, 476 (1926).

[20] Bright, op. cit. supra n. 15 at 180, 188–89. GE and Westinghouse entered a cross licensing agreement in 1896, see p. 137.

ous rival whose market share was then 13 per cent.[21] The license agreement served to protect General Electric from increased output by its licensees but the structure of distribution that it established can only be understood if interpreted as a system to protect the licensees from abuses by General Electric. Surely by charging higher royalties on Westinghouse's sales in excess of 15% of the total, General Electric could have deterred Westinghouse sufficiently from increasing its sales. Therefore, the entire system of distribution is a confession of weakness on the part of General Electric.[22]

All the members of the light bulb cartel adopted the same system of distributing that product to the public.[23] Because of the shaky legal status of straightforward resale price maintenance and in particular because of the terms of the Consent Decree of 1911, the defendants in the 1926 court action resorted to a legal stratagem to acccomplish the effects of resale price maintenance.[24] Distributors received light bulbs on consignment. Legal title to the bulbs remained in the hands of the manufacturers who were thus free to fix any retail price they liked—presumably, one that would maximize their monopoly profits. The manufacturers presented the jobbers and retailers with price lists and permitted sales at not less than the list prices.[25] Therefore, General Electric had no incentive to give secret price concessions to the jobbers and the retailers because these distributors could not lower resale prices in order to increase sales. Therefore distributors would not purchase more bulbs from General Electric even at secretly reduced prices.

[21] In 1919, seven years after the license agreement, General Electric actually reduced the royalty payments from Westinghouse by having the penalty rate come into effect when the sales of Westinghouse exceeded 17.25 per cent of the combined sales instead of 15 per cent. See Record, p. 118, United States v. General Elec. Co., 272 U.S. 476 (1926). For the 1911 market share of Westinghouse, see Bright, op. cit. supra n. 15 at 151.

[22] In 1919 the Westinghouse royalty rate was actually reduced to 1 per cent. Bright, op. cit. supra n. 15 at 236 n. 2.

[23] Record, p. 109, United States v. General Elec. Co., 272 U.S. 476 (1926). The terms of the license agreement between Westinghouse and General Electric required that both adopt the same method of distribution. Moreover, Westinghouse could not pay its agents greater commissions than General Electric.

[24] On March 3, 1911 the Department of Justice brought equity proceedings under the Sherman Anti-Trust Act against General Electric, Westinghouse and 32 other companies. The defendants accepted a consent decree that prohibited the continuance of resale price maintenance as it was carried out prior to 1911. The decree stated that any such licensor is hereby enjoined and prohibited from requiring or imposing upon the licensee the fixing of resale price to be observed by the licensee's vendee; and the purchasers of such lamps from either the licensor or from the licensee or from the vendees of either the licensor or the licensee, whether at wholesale or retail, shall not be in any manner restricted as to the price at which such lamps shall be sold to the public or to any dealer or consumer. Record, p. 860, United States v. General Elec. Co., 272 U.S. 476 (1926).

[25] From the General Sales Rules of March 1, 1912, Number 14, "The prices given in the schedule are minimum prices. Sales may be made at higher prices." Record, p. 153, United States v. General Elec. Co., 272 U.S. 476 (1926).

No agent shall be appointed to act for more than one Manufacturer, to whom these rules apply [that is, members of the cartel], or to sell or distribute more than one brand of lamp for any such Manufacturer.[26]

Thus the distributors were made exclusive agents of the manufacturer. Here we encounter an important condition of the cartel argument.

A concern acting as Agent for a Manufacturer may not be given a Form B Appointment [Form B Appointments applied to jobbers] by another Manufacturer, even if eligible thereto, unless specific approval is obtained in advance of any solicitation whatever by the Manufacturer proposing the Form B Appointment.[27]

Thus the cartel members eliminated competition for distributors. A third condition of the cartel argument is encountered. However, any jobber or retailer who previously handled the merchandise of an unlicensed manufacturer could be enticed by the licensed producers. Such distributors received a discount based on two-thirds of their net sales of the unlicensed bulbs during the period when these were handled.[28]

In effect, General Electric set the pace for the total quantity sold. By increasing its sales it permitted the other licensed manufacturers to increase their sales in proportion without paying a greater royalty rate.

A number of provisions in the agreements between manufacturers and their agents prevented the latter from offering their customers special terms that would have the effect of reducing the retail price. For example, agents could not give their customers free samples. Retailers had to account for every bulb in stock including those claimed to be damaged or missing.[29] Light bulbs were a common enough product so that consumers did not need special services from retailers to be convinced of the merits of or to be taught the finer points of light bulbs. All a retailer needed to enter the retail bulb business was a rack to store the bulbs and a contract from a jobber. Hence the manufacturers had little incentive to give secret reductions to their agents to pay for their providing special services jointly with the bulbs.

Only one kind of distributor could deal in several light bulb brands—the central station power company offering its customers a "free" renewal service. This fact does not contradict the cartel argument. The power company gave customers free light bulbs and charged higher electricity rates to cover the cost of these free bulbs.[30] Since these rates did not depend on the brand of the

[26] Record, p. 543.

[27] Record, p. 542. Similar provisions applied to retailers.

[28] Record, p. 249.

[29] Record, p. 159.

[30] "Prior to September, 1902, the [electricity] rates to small customers approximated, on the average, 20 cents a kilowatt hour, or, something, perhaps, in excess of that figure. The price included the supply of incandescent lamps for which the cost was in the neighborhood of 1 cent a kilowatt hour." T. C. Martin, Forty Years of Edison Service: 1882–1922, 137

bulbs given customers, the power stations could not reduce the price of bulbs to its customers.

Transactions among jobbers and retailers could not be made unless the agents involved received special permission to do so from the manufacturer.[31] Consumers could purchase light bulbs but only to the extent of their requirements.[32] The manufacturers gave quantity discounts to jobbers and retailers. In addition some consumers purchased bulbs under contract directly from the manufacturer and others dealt with retailers.[33] Could there be price discrimination between these two kinds of customers—the former being typically large industrial purchasers of light bulbs and the latter households?

Clearly if anyone purchases bulbs outright, that buyer could legally resell them at any price of his choosing. The agency technique for accomplishing resale price maintenance would fail if some purchasers did in fact resell bulbs at less than the list price. Even more important, without such restriction on sales to direct purchasers, any resale price maintenance scheme adopted by a group of manufacturers would fail. Without such limitations manufacturers could give secret price cuts to direct purchasers and, if these buyers resold the bulbs at lower prices than the jobbers and retailers, they could divert sales from the agent distributors. It was therefore necessary to limit their purchases

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(1922). This statement applies to New York City but it is reasonable to believe similar arrangements held elsewhere. Speaking of July, 1911, Mr. Martin goes on to say, "This schedule for the first time provided an allowance to those customers who relieved the [New York Edison] Company of the supply of incandescent lamps, who, if they guaranteed 1500 kilowatt hours of monthly consumption, were allowed to purchase their lamps independently of the service rate, to offset which they were allowed a discount of 1 cent a kilowatt hour" (p. 141). To the best of my knowledge, in those cities in which there is a lamp renewal service those purchasers of electricity who use this service pay a certain sum each month with their electricity bill.

[31] A jobber could obtain special authority to deal with another who handled the same brand. Such arrangements could be made for limited periods of time. The primary agent received as compensation "the difference between the net amount due the Manufacturer from the sale of lamps to the Secondary Agent and the net amount which would have been due the Manufacturer had the lamps been sold directly by the Primary Agent." Record, p. 551, United States v. General Elec. Co., 272 U.S. 476 (1926). Arrangements among other kinds of distributors had similar conditions.

[32] "Lamps may be sold to any consumer within domestic territory, to the extent of the consumer's requirements for immediate delivery, at the discounts fixed in the schedule for Purchasers Without Contract, which discounts are subject to change without notice. Electrical contractors requiring incandescent lamps to complete installation work will be regarded as consumers of such lamps." Sales under contract may be made only to the extent of the consumer's requirements. Record, pp. 272–73, United States v. General Elec. Co., 272 U.S. 476 (1926).

[33] General Electric's total sales of light bulbs had this composition: 22 per cent was made up of sales to purchasers under contract who dealt directly with GE employees, 37 per cent to purchasers under contract who dealt with agents, and 41 per cent to customers not under contract who dealt with agents. The corresponding figures for Westinghouse are 36 per cent, 30 per cent, and 34 per cent.

to the extent of their requirements and to offer them exactly the same terms as agents buying equal amounts. These stipulations in the rules governing sales to direct purchasers do not, therefore, necessarily indicate the existence of price discrimination.

Although the same quantity discount schedule applied to the agents as to the direct purchasers,[34] the possibility of price discrimination is not thereby excluded. Direct purchasers may have bought larger amounts than the agents and a discount schedule based on quantities is consistent with price discrimination.

Resale price maintenance coupled with restrictions on sales among distributors and other customers is circumstantial evidence of price discrimination. The former prevents leakages of sales among distributors and the latter prevents those distributors getting the product at the lower price from selling not to final consumers but to other distributors who would have to pay the manufacturer a higher price for the merchandise. Either kind of leakage spoils that segment of the market in which the manufacturer sells his product at the higher price. There is not enough relevant evidence in the court record of the case to decide the issue of price discrimination one way or another.[35] However, all the evidence in the case is consistent with the implications of the cartel argument.

V. Conclusion

Because resale price maintenance suppresses price competition among retailers, we may readily understand why as a group they often support it. This is commonly thought the chief explanation of the existence of minimum retail prices—that retailers press price maintenance on reluctant manufacturers. However, this explanation fails in those cases in which the impetus clearly comes from one or more manufacturers. There are two arguments to rationalize manufacturers' support of the policy. First, a single manufacturer producing a differentiated product over which he possesses some degree of monopoly power may find it advantageous to establish minimum retail prices in order to induce those retailers who handle his product to offer special services jointly with it thereby increasing total sales. Second, a group of manufacturers may couple resale price maintenance with a kind of exclusive dealing as part of their broad scheme to create a producers' cartel.

In the first or special service argument the manufacturer's advocacy of re-

[34] The record shows the discount schedule for purchasers under contract on p. 286. Basic rates of compensation for Agents are on pp. 288–89. These indicate that the discounts for a given amount of net sales were about the same for both kinds of transactions.

[35] One student of the case does believe in the price discrimination theory. See W. S. Bowman, Jr., Resale Price Maintenance—a Monopoly Problem, 25 J. Bus. 153–54 (1955), and also by the same author, Prerequisites and Effects of Resale Price Maintenance, 22 U. Chi. Law Rev. 825, 839–40 (1955).

sale price maintenance depends on the nature of the product. This argument applies to products which are unfamiliar to the mass of consumers either because the product is new (or embodies new features) or because it is purchased infrequently by a relatively small proportion of households. To test the significance of this explanation we need a list of consumer goods classified according to the presence or absence of price maintenance schemes such that the price maintained goods are further classified according as manufacturers (as distinct from retailers) initiated the pricing policy. If the special service argument is valid then a high proportion of the commodities price maintained at the initiative of manufacturers who possess monopoly power should require special point of purchase sales efforts whereas products sold by monopolistic manufacturers at unrestricted resale prices are not offered jointly with special services.

Of those price maintained commodities not offered jointly with special services such that the initiative stems from the manufacturer, the cartel argument should apply. We may expect that producers of these commodities sell them via distributors on the same terms. Moreover, the distributors of these goods handle only a single brand for which the manufacturer fixes a minimum price.