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THE EXPANDED ECONOMICS OF FREE-RIDING: HOW EXCLUSIVE DEALING PREVENTS FREE-RIDING AND CREATES UNDIVIDED LOYALTY

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I. INTRODUCTION

Recent Section 2 exclusive dealing case law places increasing importance on procompetitive justifications. While the minimum foreclosure share for antitrust liability under Sherman Act Section 1 and Clayton Act Section 3 has grown substantially over time, making it increasingly difficult for plaintiffs to successfully challenge exclusive dealing contracts,¹ in a number of recent cases plaintiffs have successfully challenged exclusive contracts on Sherman Act Section 2 monopolization grounds without demonstrating Section 1 foreclosure when a dominant firm could not provide a procompetitive rationale for its use of exclusivity. Since exclusive dealing may in some cases misleadingly suggest behavior that inherently places rivals at a competitive disadvantage, the absence of a valid procompetitive justification may tip the balance of procompetitive justifications and anticompetitive effects towards Section 2 liability even when

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¹ “The recent decisions uniformly favor defendants where foreclosure levels are 40 percent or less” Jonathan M. Jacobson, *Exclusive Dealing, “Foreclosure,” and Consumer Harm*, 70 ANTITRUST L.J. 311, 362 (2002) (citing cases at 325 n. 85). Moreover, exclusive dealing arrangements covering even greater shares of the market have been routinely upheld if the contracts are relatively short-term, with a number of courts concluding that exclusive contracts covering one year or less are presumptively lawful. *See, e.g.*, *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1059 (8th Cir. 2000); *Omega Envtl. Inc. v. Gilbarco, Inc.*, 127 F.3d 1157, 1163–64 (9th Cir. 1997); *Roland Mach. Co. v. Dresser Indus.*, 749 F.2d 380, 392–95 (7th Cir. 1984).

plaintiffs have not established that exclusive dealing effectively forecloses rivals from distribution.

These disparate trends in Section 1 and Section 2 exclusive dealing law are perhaps most recognizable in *Microsoft*.² The U.S. Department of Justice lost on its exclusive dealing Section 1 claims in the district court, with the court holding that Microsoft's exclusive distribution contracts with Internet access providers and personal computer manufacturers did not foreclose Netscape from distributing its browser.³ However, the Department of Justice prevailed on its Section 2 exclusive dealing monopolization claims, which the court of appeals affirmed. Microsoft was condemned not because its exclusive browser distribution contracts effectively foreclosed the market to its rivals, but because the justifications for its use of exclusive contracts, which controlled the "most efficient" means of browser distribution, were held to be pretextual.⁴ Microsoft's exclusive contracts, therefore, unnecessarily placed rivals at a competitive disadvantage.⁵ The absence of a reasonable procompetitive rationale for Microsoft's exclusivity restrictions led the court to conclude that Microsoft's contracts did not involve "competition on the merits."⁶

More recently, a similar result occurred in *Dentsply*.⁷ Dentsply, a manufacturer of artificial teeth with a 75–80 percent market share,⁸ entered into exclusive dealing contracts with its dealers, who sold Dentsply teeth along with other supplies to dental labs.⁹ The Department of Justice chal-

² *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000), *aff'd in part, rev'd in part*, 253 F.3d 34 (D.C. Cir. 2001) (en banc).

³ *Microsoft*, 87 F. Supp. 2d at 52. The D.C. Circuit signaled its disagreement, noting that "The District Court appears to have based its holding with respect to § 1 upon a 'total exclusion test' rather than the 40% standard drawn from the caselaw." *Microsoft*, 253 F.3d at 70. But the D.C. Circuit did not reverse the Section 1 ruling, which was not appealed by the plaintiffs.

⁴ "Microsoft's only explanation for its exclusive dealing is that it wants to keep developers focused upon its APIs [Windows application program interfaces]—which is to say, it wants to preserve its power in the operating system market. . . . That is not an unlawful end, but neither is it a procompetitive justification for the specific means here in question, namely exclusive dealing contracts with IAPs [Internet access providers]." *Microsoft*, 253 F.3d at 71.

⁵ *Id.* at 70–71.

⁶ The D.C. Circuit defined "competition on the merits" as competition that "involves, for example, greater efficiency or enhanced consumer appeal." *Id.* at 59.

⁷ *United States v. Dentsply Int'l, Inc.*, 277 F. Supp. 2d 387 (D. Del. 2003), *rev'd*, 399 F.3d 181 (3d Cir. 2005), *cert. denied*, 126 S. Ct. 1023 (2006).

⁸ *Dentsply*, 277 F. Supp. 2d at 423.

⁹ For consistency of exposition throughout the article we refer to the supplier of the product in question as "the manufacturer," and, in most cases, the purchaser/distributor of the manufacturer's product as "the dealer."

lenged the contracts on Section 1 and Section 2 grounds, maintaining that exclusivity had the effect of foreclosing rival artificial teeth manufacturers from the primary channel of distribution with no procompetitive rationale. The district court rejected Dentsply's attempt to provide procompetitive justifications for its exclusive dealing contracts as pretextual, but did not condemn the arrangements on either Section 1 or Section 2 grounds because it concluded that sufficient alternative distribution channels were available for rival manufacturers.¹⁰

Once again, the Department of Justice did not challenge its Section 1 loss, and only appealed the court's Section 2 ruling. The court of appeals reversed the district court's rejection of Section 2 antitrust liability, concluding that Dentsply effectively foreclosed the "preferred distribution channels—in effect the 'gateways'—to the artificial teeth market" without a valid procompetitive rationale.¹¹ Dentsply's exclusive contracts placed its rivals at a competitive disadvantage without any procompetitive benefit to balance against this anticompetitive effect. While the *Dentsply* court does not use the *Microsoft* terminology, that Dentsply's use of exclusive dealing did not involve "competition on the merits," the decision is consistent with the view that a firm with significant market power must have a non-pretextual procompetitive rationale for using an exclusive dealing contract to avoid potential Section 2 liability.

In addition to reinforcing the increasing legal importance placed on procompetitive justifications for exclusive dealing contracts under Section 2, *Dentsply* illustrates the extremely narrow economic foundation upon which procompetitive justifications currently rest. The two most common procompetitive justifications for exclusive dealing, that exclusive dealing prevents dealer free-riding on manufacturer-supplied investments and creates dedicated dealers that have an incentive to more actively promote the manufacturer's products, were both offered by

¹⁰ Specifically, the court concluded that Dentsply's exclusive contracts did not have an anticompetitive effect because "direct distribution is viable, non-Dentsply dealers are available, and Dentsply dealers may be converted at any time." *Dentsply*, 277 F. Supp. 2d at 453.

¹¹ *Dentsply*, 399 F.3d at 193, 196–97. The court of appeals discounted the possibility that rival manufacturers could compete effectively by relying on direct sales to dental laboratories, noting that direct distribution was "'viable' only in the sense that it is 'possible,' not that it is practical or feasible in the market as it exists and functions," as evidenced by the fact that total sales by Dentsply's two primary direct-selling competitors comprised only 8 percent of the market. *Id.* at 193. Moreover, the court held that, although dealers legally could terminate their relationship with Dentsply "at will" and switch to a competing line of artificial teeth, "dealers have a strong economic incentive to continue carrying Dentsply's teeth." *Id.* at 193–94.

Dentsply and firmly rejected by the court on the basis of economic considerations.¹²

The district court emphasized that the prevention of dealer free-riding on Dentsply's investments, a widely accepted rationale for exclusive dealing based on Howard Marvel's classic article and reiterated by Marvel in his testimony as the economic expert retained by Dentsply,¹³ did not fit the facts of the case. In particular, the court concluded that the conditions required for the use of exclusive dealing to prevent free-riding on manufacturer-supplied investments were not present because: (a) Dentsply did not provide investments to its dealers that could be used to sell rival brands, (b) there was no evidence of dealers (including grandfathered dealers not subject to exclusive dealing) switching customers (dental labs) to rival brands, and (c) contrary to the economic theory of free-riding, where exclusive dealing has the beneficial effect of increasing the manufacturer's incentive to make promotional investments knowing the investments will not be used by dealers to sell rival brands, Dentsply executives testified that Dentsply would have increased its direct promotional investments if it were unable to use exclusive dealing.¹⁴ As we shall see, all of these facts are fully consistent with the use of exclusive dealing to prevent dealer free-riding once we understand the expanded economics of free-riding.

The expanded economic analysis of free-riding presented in this article is based upon the fundamental business reality that manufacturers often want their dealers to provide more promotion for their products than the dealers would independently decide to supply. This disparity between manufacturer desires and dealer incentives with regard to dealer promotional activity exists not because of the commonly recognized inter-dealer free-riding problem described in *Sylvania*,¹⁵ where free-riding dealers save the costs of providing desired point-of-sale pro-

¹² Jonathan Jacobson lists seven additional economic justifications for exclusive dealing that have sometimes been accepted by courts. Jacobson, *supra* note 1, at 357–60. Some of these additional justifications, however, are analytically similar to the prevention of free-riding or the creation of dedicated dealers. For example, the use of exclusive dealing to assure quality and to prevent dealers from passing off an inferior product in place of the manufacturer's product (discussed *infra* note 28) or to reduce the costs of monitoring dealer performance (discussed *infra* note 70) are shown to be economic variants of the prevention of free-riding, and the use of exclusive dealing to increase dealer incentives to stock inventories and thereby decrease "out-of-stocks" (discussed *infra* note 57) is shown to be an economic variant of the use of exclusive dealing to increase dealer incentives to promote by creating dedicated dealers.

¹³ Howard P. Marvel, *Exclusive Dealing*, 25 J.L. & ECON. 1 (1982).

¹⁴ *Dentsply*, 277 F. Supp. 2d at 442–46.

¹⁵ *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 55 (1977).

motional services by having their customers go to a full-service dealer to receive the services free of charge before purchasing the product from them at a lower price. Our analysis demonstrates that dealers often have inadequate incentives to supply the quantity of promotion that maximizes manufacturer profitability even when such inter-dealer free-riding does not exist.

Dealers often have an insufficient incentive to supply the quantity of brand-specific promotion that maximizes manufacturer profitability because they earn less profit than the manufacturer on their promotional efforts. This is because the manufacturer's profit margin on the incremental sales induced by dealer promotion often is significantly greater than the dealer's incremental profit margin and because the manufacturer's quantity increase from brand-specific dealer promotion is significantly greater than the dealer's quantity increase. These differential quantity effects are a consequence of the fact that brand-specific dealer promotion primarily shifts consumer purchases to the promoted brand from other brands without causing consumers to shift their purchases between dealers. In these circumstances dealers will find it in their independent economic interests to supply less brand-specific promotion than is desired by a manufacturer, creating an incentive for manufacturers to compensate dealers for providing increased promotion of their products.

Using examples taken from important exclusive dealing cases, we describe the distribution arrangements manufacturers commonly use to induce dealers to supply increased brand-specific promotion. In general, distribution arrangements only incompletely specify desired dealer promotional performance contractually, but compensate dealers for supplying increased promotion, often with the use of vertical restraints that provide dealers with a profit stream. The increased dealer promotion supplied by the dealer and paid for by the manufacturer is not typically a court-enforceable agreement, but rather, is an economic understanding that the manufacturer anticipates will be self-enforced. In particular, the dealer knows that if it does not meet manufacturer expectations, the manufacturer likely will terminate the relationship.

Because dealers are supplying more brand-specific promotion under these arrangements than they would otherwise independently find profitable to supply, dealers can increase their short-run profits (before manufacturer detection and termination) by not providing the increased promotion they have been paid to supply. Dealers may profit in three economically distinct ways, each of which can usefully be described as dealer free-riding on the manufacturer because in all three cases dealers are taking advantage of the way in which the manufacturer is compen-

sating dealers for increased promotion. The first type of dealer free-riding, which is the focus of standard economic and antitrust analysis of exclusive dealing, involves a dealer taking advantage of manufacturer-provided promotional investments, such as dealer sales training or display fixtures. These investments are supplied to dealers free of charge as a way for the manufacturer to subsidize brand-specific dealer promotion. Free-riding dealers then use these investments to sell alternative products on which they can earn greater profit. This form of dealer free-riding is clearly prevented with exclusive dealing since the dealer is prohibited from selling alternative products. Although this is a valid economic rationale for exclusive dealing, we demonstrate that this is not the only or most common form of free-riding that may be mitigated by exclusive dealing.

Whether or not a manufacturer supplies dealers with investments that the dealers can use to sell rival products, a second type of potential dealer free-riding exists when manufacturers pay dealers for supplying increased promotion. Dealers then have an economic incentive to use their promotional efforts purchased by the manufacturer to switch consumers to other products upon which they can earn greater profit. This dealer free-riding problem is shown to exist because dealer promotion compensation arrangements, such as exclusive territories, often pay dealers as a function of all their sales, not solely the incremental sales induced by the additional dealer promotion the manufacturer has purchased. Therefore, when a dealer uses its extra promotional efforts to sell another brand, it continues to receive most of the manufacturer's compensation for providing additional promotion while not promoting the manufacturer's products. Exclusive dealing can be used to prevent this second type of free-riding in the same way it prevents the first type of free-riding, by preventing dealers from using their promotional efforts that have been paid for by the manufacturer to sell alternative brands.

Our expanded economic framework also illustrates that a third form of potential dealer free-riding exists which may be mitigated by exclusive dealing. Rather than a dealer using manufacturer-supplied promotional investments or manufacturer paid-for dealer promotional efforts to promote the sale of other brands, a dealer may free-ride on the manufacturer merely by failing to supply the level of promotion for which the manufacturer has paid. Since dealers often are compensated for supplying additional promotion on the basis of all their sales, including sales the dealer would make even if it did not provide the additional promotional efforts it has been paid for, dealers have an incentive not to supply the additional promotion and continue to collect most of the manufacturer's compensation. Exclusive dealing is shown to mitigate this third type of free-riding by creating dealers with "undivided loyalty" that have

an increased independent economic incentive to more actively promote the manufacturer's products.

Although an undivided dealer loyalty rationale has been accepted by a number of courts as a procompetitive motivation for exclusive dealing,¹⁶ the rationale has been rejected in the economics literature. In *Dentsply*, Judge Robinson accurately described the lack of an existing economic basis for an undivided loyalty rationale for exclusive dealing by noting that Howard Marvel, Dentsply's own economic expert, explicitly rejected the possibility that exclusive dealing could increase dealer services in his article.¹⁷ The court fully accepted Marvel's economic reasoning, concluding that the use of exclusive dealing to create dedicated dealers that have an increased incentive to supply desired promotional services is not a valid justification for exclusive dealing because dealers have incentives to provide services in order to compete for customers.¹⁸ However, while this argument is correct for dealer supply of services with large inter-dealer demand effects (such as convenient parking or clean stores), inter-dealer competition is an insufficient motivation for dealers to supply brand-specific promotion that has little or no inter-dealer demand effects. Our analysis provides an economic basis for the commonsense, but previously unproven, proposition that exclusive dealing increases independent dealer incentives to more actively promote a manufacturer's product in these circumstances by creating undivided loyalty.

All three types of potential dealer failures to meet manufacturer expectations with regard to the supply of desired brand-specific promotion can usefully be labeled as dealer free-riding. Dealers receive manufacturer compensation in the form of manufacturer-provided investments or monetary payments and then do not supply the increased promotion of the manufacturer's products for which they have been compensated. Unfortunately, current antitrust economics only recognizes the first type of dealer free-riding on manufacturer investments. This implies too narrow a view of the potential procompetitive purposes served by exclusive dealing and, as illustrated by *Dentsply*, leads to an unnecessarily restricted search for manufacturer investments that dealers can free-ride upon in order to justify exclusive dealing. Our analysis demonstrates that exclusive dealing may more generally serve the procompetitive purpose of preventing dealer free-riding on a manufacturer's compensation arrangement for increased brand-specific dealer promotion in circumstances where the manufacturer has not made "free-

¹⁶ See, e.g., *infra* notes 75, 79, and 80.

¹⁷ *Dentsply*, 277 F. Supp. 2d at 441 (referring to Marvel, *supra* note 13).

¹⁸ *Id.*

rideable” investments and dealers do not switch consumers demanding the manufacturer’s products to an alternative brand.

The expanded economic analysis of exclusive dealing presented in this article does not mean that exclusive dealing is always benign. In particular, the additional procompetitive efficiencies of exclusive dealing we describe may be outweighed in specific cases by potential anticompetitive effects of the exclusive dealing contract in foreclosing rivals. What it does mean, however, is that, because of the expanded legitimate procompetitive justifications that may be offered for exclusive dealing, balancing procompetitive efficiencies against potential anticompetitive effects will be required in many more exclusive dealing cases than previously believed.

II. STANDARD DEALER FREE-RIDING: USING MANUFACTURER-SUPPLIED INVESTMENTS TO SELL ALTERNATIVE PRODUCTS

The standard dealer free-riding theory that forms the current legal basis for the procompetitive justification of exclusive dealing refers to cases where a manufacturer makes investments in promotional assets that it provides to its dealers free of charge.¹⁹ Manufacturer investments may include, for example, dealer display fixtures or salesperson training. The manufacturer then expects its dealers to use these assets to promote its products, and not the products of rival manufacturers. For example, in *Beltone*²⁰ these manufacturer-supplied promotional investments consisted of sales leads. Beltone, a hearing aid manufacturer, advertised its products in publications aimed at senior citizens, who were encouraged to fill out cards requesting additional information. Beltone, which sold its products through exclusive dealers that had exclusive sales territories,²¹ supplied the sales leads generated by its ads to the dealer located nearest the prospective customer. The dealer then called on the prospective customer and provided on-site demonstrations, fitting, and other services necessary to complete the sale.²²

¹⁹ Marvel, *supra* note 13, at 2, 6–8.

²⁰ *Beltone Elecs. Corp.*, 100 F.T.C. 68 (1982).

²¹ *Id.* at 270. Beltone’s exclusive territories were enforced in part by refusing to issue warranties submitted by dealers on sales to consumers outside their assigned territories. See Howard P. Marvel, *Vertical Restraints in the Hearing Aids Industry*, in *IMPACT EVALUATIONS OF FEDERAL TRADE COMMISSION VERTICAL RESTRAINT CASES 270, 280* (Ronald N. Lafferty, Robert H. Lande & John B. Kirkwood eds., 1984).

²² *Beltone*, 100 F.T.C. at 90, 180–81. The FTC began an investigation in 1970 of these distribution arrangements, used by a number of hearing aid manufacturers, that resulted in a series of actions brought in 1973 against several of the leading hearing aid manu-

Since Beltone directly provided its dealers with significant promotional assets in the form of sales leads, it is obvious that Beltone would want its dealers to use these investments to sell its products. However, when a manufacturer directly supplies a dealer with investments that can be used to sell other manufacturers' products, a potential dealer free-riding problem is created. Specifically, dealers will have an incentive to use the manufacturer's investments to sell the other manufacturer's brand if they can earn a higher profit margin on the alternative brand.

The dealer's profit margin is likely to be higher on alternative products because the dealer generally will be able to purchase such products at lower wholesale prices since manufacturers of these products need not bear the costs of supplying promotional investments to dealers. In addition, dealers demanding an alternative product usually will have a choice from several highly substitutable suppliers. The wholesale price of the alternative product, therefore, will be much closer to marginal manufacturer production cost than the original manufacturer's wholesale price. Consequently, the dealer may be able to earn a higher profit margin on the alternative product even when charging a lower retail price. For example, if the dealer can convince some customers that the alternative product is "almost as good," the dealer is likely to earn higher profits because the required reduction in the retail price necessary to make the sale will be less than the wholesale price savings.

It may appear that the manufacturer of the alternative product is free-riding on the original manufacturer that has made the promotional investment, in effect using the original manufacturer's investment as its own. However, it is the dealer that is ultimately engaging in free-riding by using the manufacturer-supplied assets to sell another manufacturer's product. Moreover, it is primarily the dealer that is benefiting from the switching. Competition between other manufacturers in supplying the alternative product to the dealer will mean that other manufacturers are unlikely to profit significantly from the dealer free-riding.

A similar exclusive dealing case, where the manufacturer directly supplied significant promotional investments valued by its dealers, is *Ryko*.²³ Ryko, a manufacturer of automatic car-wash equipment, used exclusive dealing/exclusive territory contracts with its dealers, which were respon-

facturers, including Dahlberg Electronics, Maico Hearing Instruments, Sonotone Corporation, and Radioear Corporation, in addition to Beltone Electronics. All the other companies reached consent agreements between 1973 and 1976. Beltone, the largest manufacturer with approximately a 20 percent market share, chose not to enter into a consent agreement and litigated to a successful conclusion in 1982.

²³ *Ryko Mfg. Co. v. Eden Servs.*, 823 F.2d 1215 (8th Cir. 1987).

sible for promoting the sales of Ryko equipment to car washes and gasoline stations in their designated areas.²⁴ As part of its marketing, Ryko made sales presentations to national gasoline companies, which decided whether to recommend the product to their gasoline station dealers. Once Ryko convinced a national gasoline company of the potential value of its product, this information was supplied to the operators of the gasoline company's stations in their areas.²⁵ The Ryko dealer then was responsible for completing the sale by convincing individual gas stations to purchase the Ryko system.²⁶

This arrangement created the potential for Ryko dealers to take advantage of the initial promotional investments made by Ryko in obtaining approval of the Ryko system by the national gasoline company, without which it would have been much less likely that local Ryko dealers could successfully make the ultimate sale to the gasoline stations, to switch buyers to alternative products. In fact, litigation arose because Eden Services, a local Ryko distributor, when making its presentation to potential gasoline station buyers, promoted its own water reclamation system at the expense of the Ryko system, in violation of Ryko's exclusive dealing contract.²⁷ Ryko terminated Eden and Eden sued, challenging the exclusive on antitrust grounds.

In general, dealers will have to make an extra effort to switch consumers to alternative brands when consumers visit a dealer with an expectation of purchasing a particular manufacturer's product. For example, consumers responding to a Beltone hearing aid advertisement and accepting a visit by a representative from a Beltone dealer expect to learn about and possibly purchase a Beltone product. However, dealers will have an incentive to devote resources to switching sales from the manufacturer's product to an alternative product consumers may not be aware of if the dealer earns a greater profit margin on the alternative product. Since, as described above, dealers generally can purchase alternative, non-promoted products at lower wholesale prices, they have the potential to earn increased profits while also selling the product at lower retail prices. If some consumers do not have a strong preference for the manufacturer's product, dealers may be able to switch those consumers to the alternative product merely by asserting that the lower-priced alternative product is "just as good" as the manufacturer's product they may have initially asked for.

²⁴ *Id.* at 1218.

²⁵ *Id.* at 1219–20.

²⁶ *Id.* at 1220.

²⁷ *Id.* at 1220–21, 1230.

In some circumstances dealers may not even disclose to customers that a substitution is being made and therefore “pass off an inferior product as the supplier’s own.”²⁸ In cases where buyers are unaware that the dealer has switched them to an alternative, lower cost product, the extra effort necessary for the dealer to switch buyers may be very low or nonexistent, so that the dealer’s free-riding potential in using the investments provided by the manufacturer to sell alternative products may be substantially increased.²⁹

It is obvious why a manufacturer that wishes to prevent the type of free-riding illustrated in *Beltone* and *Ryko* may use exclusive dealing. An exclusive, by prohibiting dealers from selling any competing hearing aid brand or water reclamation system, prevented *Beltone* and *Ryko* dealers from engaging in free-riding on the manufacturers’ investments by preventing dealer switching of consumers to other brands. And by permitting the manufacturers to capture the return on their investments, the exclusive encouraged manufacturers to make valuable investments in generating sales.³⁰

This procompetitive rationale for exclusive dealing was accepted at trial in both *Beltone* and *Ryko*. In *Beltone* the FTC held that, by protecting *Beltone*’s promotional investments, the exclusive was justified because it encouraged *Beltone* to make valuable promotional investments.³¹ Similarly, in *Ryko* the court described *Eden*’s behavior in promoting its own water reclamation system at the expense of the *Ryko* system in violation of the exclusive dealing contract as *Eden* free-riding on *Ryko*’s marketing efforts. The court concluded that the exclusive contract was procompetitive because it made it more likely that manufacturers would undertake valuable marketing activities in the first place because they need not fear that the increased sales created by such activities would be partially lost to other firms.³²

²⁸ Jacobson, *supra* note 1, at 358.

²⁹ In addition to the loss of profit to the manufacturer on any sales that are switched, in these circumstances the manufacturer also may bear the cost of a loss to its reputation (and reduced future sales) if the customer receives an inferior product that fails to perform as expected that the customer believes is the manufacturer’s product. In cases such as this, the manufacturer may find it economic to sue the dealer for commercial fraud, and not merely terminate the dealership.

³⁰ Marvel, *supra* note 13, at 7.

³¹ *Beltone*, 100 F.T.C. at 215–18. The FTC also found that there was significant inter-brand competition and that *Beltone*’s exclusive contracts did not foreclose distribution to competitors. *Id.* at 290–91.

³² *Ryko*, 823 F.2d at 1234–35 n.17. In addition to finding *Ryko*’s exclusive contracts procompetitive, the court found that the exclusive did not foreclose competition since there was “no evidence suggesting that *Ryko*’s exclusive dealing provisions generally prevent *Ryko*’s competitors from finding effective distributors for (or other means of promoting and selling) their products.” *Id.* at 1234.

This standard procompetitive justification of exclusive dealing as a way to prevent free-riding on manufacturer promotional investments was found by the court not to apply to the exclusive dealing contracts used by Dentsply. In particular, the district court noted there was an absence of any evidence of grandfathered Dentsply dealers not subject to exclusive dealing switching dental labs to other brands.³³ Dentsply's promotional investments were claimed to be "purely brand-specific," leading the court to conclude that dealers could not free-ride by using such investments to sell alternative products.³⁴ However, as the facts of *Beltone* and *Ryko* clearly illustrate, manufacturer brand-specific investments that increase the demand for the manufacturer's products, including a manufacturer's brand-specific advertising, may create the potential for free-riding dealers to use such manufacturer investments to sell alternative brands. Presumably the *Dentsply* court meant by "purely brand-specific" those investments that could not be used in any way by dealers to sell alternative products.³⁵ However, as we shall see, a dealer free-riding potential exists even when a manufacturer does not make any investments that dealers can use to sell alternative products. This is because manufacturers commonly compensate dealers to supply increased promotion of their products, a condition that creates dealer free-riding potential in the absence of manufacturer investments.

III. MANUFACTURERS COMPENSATE DEALERS FOR INCREASED PROMOTION

A. MANUFACTURERS DESIRE INCREASED DEALER PROMOTION

In most marketing arrangements manufacturers desire their dealers to supply brand-specific promotional efforts at the point of sale. This is because manufacturer promotion (e.g., product advertising, the provision of promotional assets to dealers, and other promotion) is not a perfect

³³ "There are 'zero examples' in the record of these dealers steering customers from one brand to another." *United States v. Dentsply Int'l, Inc.*, 277 F. Supp. 2d 387, 443–45 (D. Del. 2003), *rev'd*, 399 F.3d 181 (3d Cir. 2005), *cert. denied*, 126 S. Ct. 1023 (2006).

³⁴ *Dentsply*, 277 F. Supp. 2d at 445. The court cited Marvel's article, *supra* note 13, stating that "[t]he term 'purely brand-specific' is derived from Prof. Marvel's 1982 paper describing his theory, where he wrote: 'This argument does not apply if the promotional investment is purely brand-specific. In such cases, the dealer will not be in a position to switch customers from brand to brand.'" *Id.*

³⁵ Marvel argued that Dentsply was making brand-specific investments that were not "purely" brand-specific in this sense. The example he uses is Dentsply's promotion of "Portrait" and other new premium products. Marvel argued that without exclusive dealing it would not have been profitable for Dentsply to undertake the promotional investments required to introduce these new products because dealers could then switch customers to an alternative premium product from another manufacturer. *Id.* at 442.

substitute for dealer promotional efforts. For example, an automobile manufacturer may make large advertising expenditures to get customers interested in their automobiles and to visit a dealership, but significant point-of-sale dealer promotional efforts are likely to be required in most instances to complete the final sale.

An important economic fact about distribution relationships is that manufacturers often desire their dealers to provide more promotion of their products at the point of sale than dealers would independently decide to supply. This desire by manufacturers for increased point-of-sale dealer promotional efforts is what motivates manufacturers to subsidize dealer promotional efforts by supplying promotional assets to dealers free of charge, as in *Beltone* and *Ryko*. However, because an overall efficient marketing program will require that some elements of promotion be provided by dealers, a manufacturer will not be able to efficiently overcome the fundamental distortion between its incentive for increased dealer promotion and the independent dealer incentive to promote solely by increasing the promotional investments it provides to dealers. Therefore, although manufacturer promotional investments were provided to dealers in both *Beltone* and *Ryko*, *Beltone* and *Ryko* both required their dealers to provide significant promotional efforts at the point of sale.³⁶

The fact that manufacturers often desire more dealer promotion than dealers would independently decide to supply is contrary to established economic analysis as well as the court's conclusion in *Dentsply*, where competition among dealers for consumers was assumed to provide dealers with the correct incentive to promote the manufacturer's products.³⁷ The only circumstance in the antitrust economics literature where dealers are assumed to supply fewer promotional services than desired by the manufacturer is when dealers engage in inter-dealer free-riding. This involves dealers not supplying a service, such as customer product demonstrations, and instead encouraging customers to first go to a full-service dealer to receive the service before purchasing the product from

³⁶ In *Ryko*, the court noted that "the distributors' promotional efforts can be essential to the completion of individual (NAP) [National Account Program] sales . . . [w]hile an oil company might designate Ryko an approved equipment supplier as the result of a national sales presentation, many NAP sales cannot be completed until the distributor has convinced the local purchaser that installing Ryko car-wash equipment at his location is a profitable idea." *Ryko*, 823 F.2d at 1220. In *Beltone*, dealers were supposed to follow up on sales leads with "a personal call upon the responding customer and to provide him or her with testing and information about hearing impairment and hearing aids. The dealer also requests that the person come to his shop for more thorough fitting of a suitable *Beltone* hearing aid." *Beltone*, 100 F.T.C. at 180-81.

³⁷ *Dentsply*, 277 F. Supp. 2d at 441.

them at a lower price. Because dealers can free-ride on the services provided by competing dealers in this way, each dealer will have an incentive to supply less than the desired quantity of services.³⁸

Preventing this form of inter-dealer free-riding, however, cannot explain the use of exclusive dealing. Marvel correctly maintains that, even when the potential for such inter-dealer free-riding exists, “exclusive dealing is not an efficient means by which to promote increases in dealers’ services.”³⁹ Exclusive dealing would have no effect in mitigating the free-riding and encouraging dealers to increase their services since an identical inter-dealer free-riding incentive would continue to be present under exclusivity.⁴⁰ The *Dentsply* court agreed, concluding that “enhancing dealer services cannot be the justification for exclusive dealing.”⁴¹ However, the problem of insufficient dealer promotion is much broader than inter-dealer free-riding. Even if inter-dealer free-riding does not exist, uncontrolled dealers generally will not supply the quantity of brand-specific promotion that maximizes the manufacturer’s profit.⁴²

The economic reason dealers do not supply the level of brand-specific promotion desired by the manufacturer is because the profit earned by dealers as a result of their promotional efforts is usually significantly less than the manufacturer’s profit resulting from such promotion. This dealer incentive problem can be formalized by defining the dealer’s profit from supplying additional brand-specific promotional services, S , in terms of the dealer’s profit margin on incremental sales, M^D , multiplied by the dealer’s demand increase from supplying the promotion, dQ_D/dS , and similarly defining the manufacturer’s profit in terms of the manu-

³⁸ The avoidance of this type of inter-dealer free-riding is the primary economic rationale for vertical restraints in antitrust law and economics. For example, exclusive territories reduce the ability of consumers to free-ride in this way since limited-service dealers are not conveniently available. See *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 55 (1977). Similarly, resale price maintenance is claimed to reduce the incentive of consumers to free-ride in this way since a lower priced dealer is not available. See Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86 (1960).

³⁹ Marvel, *supra* note 13, at 4.

⁴⁰ “The free-rider problems facing exclusive and multiline dealers are identical.” *Id.* at 5.

⁴¹ *Dentsply*, 277 F. Supp. 2d at 441.

⁴² A more formal statement of the following analysis is provided in Benjamin Klein & Joshua Wright, *The Economics of Slotting Contracts*, J.L. & ECON. (forthcoming 2007), which extends the original analysis of inadequate dealer incentives to promote (and the economic role of vertical restraints in solving this dealer incentive problem by creating a dealer profit premium stream that facilitates manufacturer self-enforcement) that is presented in Benjamin Klein & Kevin M. Murphy, *Vertical Restraints as Contract Enforcement Mechanisms*, 31 J.L. & ECON. 265 (1988).

facturer's profit margin on incremental sales, M^M , multiplied by the manufacturer's demand increase from the dealer's supply of promotion, dQ_M/dS . Dealers generally have less incentive than the manufacturer to promote the manufacturer's product because:

$$M^D (dQ_D/dS) < M^M (dQ_M/dS). \quad (1)$$

Condition (1) holds because both economic factors, the profit margin on incremental sales and the increase in demand from dealer supply of brand-specific promotional services, are likely to be higher for the manufacturer than for the dealer. With regard to the first factor, the profit margin earned by manufacturers on incremental sales is often significant because manufacturers generally face a negatively sloped demand and therefore set the prices they charge dealers above their marginal cost.⁴³ In contrast, the assumption made in describing most distribution markets (absent any manufacturer-imposed vertical restraint that limits inter-dealer competition) is that inter-dealer competition implies highly elastic individual dealer demand and a relatively low dealer profit margin on incremental sales. Therefore, the dealer's profit on the incremental sales produced by its promotion is often significantly less than the manufacturer's profit on incremental sales.

Equation (1) assumes that dealer supply of promotion does not influence the manufacturer or dealer profit margin. In particular, we assume that dealers cannot cover the cost of promotion with a higher price. This is a reasonable assumption because dealer supplied brand-specific promotion is aimed at "marginal" consumers who, absent the promotion, would not purchase the particular manufacturer's product. Dealer brand-specific promotion can be thought of as a way to provide a targeted effective net price discount primarily to such marginal consumers to induce incremental sales of the manufacturer's product. To operate, therefore, such promotional services must be provided to marginal consumers free of charge. Hence, the assumption of constant dealer profit margins in response to dealer promotion makes economic sense.⁴⁴

⁴³ This does not imply that such manufacturers possess any antitrust market power, in the sense of the ability to affect market prices. Almost every firm operating in the economy, except perhaps the wheat farmer described in introductory economics textbooks, faces a negatively sloped demand because it is producing a differentiated product and, hence, charges a price greater than marginal cost. See Benjamin Klein, *Market Power in Antitrust: Economic Analysis After Kodak*, 3 S. CT. ECON. REV. 43 (1993).

⁴⁴ In fact, because infra-marginal consumers who would purchase the product without dealer provision of brand-specific promotion are unlikely to receive much, if any, value from the dealer's promotion, the dealer may find it profitable to decrease price in response to increased promotion. The provision of the brand-specific promotion can be thought of as shifting demand out only for marginal consumers, and, by increasing the

The dealer's lower profitability compared to the manufacturer's profitability from dealer supply of brand-specific promotion is reinforced by the second factor, a lower dealer versus manufacturer quantity response to dealer brand-specific promotion ($dQ_D/dS < dQ_M/dS$). This is because a dealer's quantity increase in response to its promotion of a particular manufacturer's product is likely to be at least partially offset by decreases in dealer sales of rival manufacturers' products. To illustrate, consider the example of a supermarket promoting Coca-Cola by placing it in more prominent eye-level shelf space.⁴⁵ If we assume there is not also a promotional price discount associated with the promotional shelf space, the promotional shelf space is likely to have primarily inter-manufacturer effects, increasing the supermarket's sales of Coke but also decreasing the supermarket's sales of Pepsi and other soft drinks that the supermarket continues to stock in less prominent space. Because Coke sales will "cannibalize" the supermarket's sales of other soft drinks, the supermarket's net quantity increase from the supply of promotional shelf space for Coke will be less than Coca-Cola's quantity increase. In fact, in some circumstances the supermarket's net quantity increase may even be zero, when customers merely substitute purchases of one brand for another in response to the supermarket's promotion. Similarly, a dealer's promotion of one brand of water reclamation system rather than another brand was unlikely to increase a Ryko dealer's total sales.

This lower dealer quantity increase relative to the promoted manufacturer's quantity increase due to inter-manufacturer "cannibalization" effects will be offset if the dealer supplies services that have inter-dealer demand effects, as consumers switch their purchases from other dealers. In these circumstances the dealer will experience increased total sales. For example, when a dealer supplies services, such as the provision of convenient parking, a clean store, or knowledgeable salespeople, the supply

marginal elasticity of demand, may result in a decrease in the dealer's profit-maximizing price and profit margin. See Gary Becker & Kevin M. Murphy, *A Simple Theory of Advertising as a Good or Bad*, 108 Q.J. ECON. 941 (1993), where a firm's price change is shown to depend upon the change in its elasticity of demand and whether the increased supply of promotion increases marginal cost.

⁴⁵ This example is used because it is a clear case of purely brand-specific promotion. However, manufacturers can, and often do, explicitly contract for desired supermarket promotional shelf space with slotting fee contracts (Klein & Wright, *supra* note 42). Therefore, when shelf space contracts include exclusive dealing terms, it is not likely it is to prevent supermarkets from free-riding by using a manufacturer's purchased space to sell another manufacturer's product, as exclusive dealing is used in the cases analyzed in this article. Instead, exclusive dealing often can be explained in shelf space cases by competitive retailer commitments to transfer loyal customers to a particular manufacturer in return for more favorable purchase prices. See Benjamin Klein & Kevin M. Murphy, *Exclusive Dealing Intensifies Competition for Distribution* (unpublished manuscript 2007) (on file with authors).

of these services will draw consumers to the particular dealer, as consumers shift their purchases of a manufacturer's product between dealers. However, there is unlikely to be any significant inter-dealer demand effects in response to dealer supply of purely brand-specific promotion. Consumers will not, for example, switch the supermarket they shop at solely because Coke has received more prominent shelf space than competing brands.

When dealer services have significant inter-dealer effects, competition between dealers results in dealers providing the desired quantity of these services because an individual dealer that supplies such services experiences a shift out in its demand resulting in an increase in the price it can charge for its products and/or an increase in the quantity of its sales.⁴⁶ Although dealers will not consider the extra profit earned by the manufacturer from incremental sales produced by the provision of, for example, convenient parking, inter-dealer competition will lead dealers to provide the service because the supply of parking has no "cannibalization" effects and attracts customers from other dealers. Consequently, when dealers make decisions about supplying such services, the dealer's larger demand response with regard to provision of the services compared to the manufacturer's demand response will offset the dealer's lower profit margin compared to the manufacturer's profit margin, so that the dealer's incentive to supply the services is not less than the manufacturer's incentive for dealer supply of such services.

The dealer incentives to supply services that have large inter-dealer competitive effects are analogous to dealer incentives to engage in price competition. Although dealers do not take account of the manufacturer's higher profit margin on incremental sales when deciding to lower their price, this does not generally create a distortion with regard to insufficient dealer incentives to engage in price competition because individual dealers perceive much greater demand effects from lowering price than the demand effects experienced by the manufacturer from an individual dealer's decrease in price. A lower dealer price produces a much larger increase in an individual dealer's demand than in the manufacturer's demand because consumers purchasing the manufacturer's product at other dealers will switch their purchases to the now lower-priced dealer in response to its price decrease.⁴⁷ Since the individual

⁴⁶ Whether the dealer's price will increase is indeterminate. See Becker & Murphy, *supra* note 44.

⁴⁷ Of course, if all dealers lower price, an individual dealer's actual demand increase will not exceed the manufacturer's demand increase. The sum of all dealer demand increases and decreases will always equal the manufacturers' demand increase. However, if dealers price independently, each dealer will perceive substantially larger demand

independent dealer response to price changes will be much larger than the manufacturer response due to these inter-dealer demand effects, an individual dealer's profit incentive to reduce price will not be significantly less than the manufacturer's incentive for dealer price reductions, in spite of the fact that the manufacturer's margin on the incremental sales produced by the price decrease is substantially greater than the dealer's margin. In these circumstances inter-dealer competition largely eliminates any distortion with regard to dealer incentives to engage in price competition.⁴⁸

In contrast to these examples where dealer profit incentives to engage in price competition or to supply nonprice services with large inter-dealer effects are not less than manufacturer incentives, dealer profitability from the supply of brand-specific promotion will be substantially less than manufacturer profitability because of the absence of inter-dealer demand effects from the provision of brand-specific promotion. A dealer's demand increase in response to its supply of brand-specific promotion, therefore, will be significantly less than the manufacturer's demand increase. Consequently, because dealers cannot expect to charge increased prices to consumers or to increase their total sales sufficiently in response to their supply of brand-specific promotion, dealers will not have the incentive to supply as much brand-specific promotion as an individual manufacturer would find profit-maximizing. Since the manufacturer would be willing to pay the dealer's costs of providing additional brand-specific promotion (which would be more than covered by the manufacturer's additional profit on the incremental sales generated by the dealer's promotion), yet dealers do not find it in their independent interests to provide this increased brand-specific promotion, manufacturers have an incentive to find a way to compensate dealers for supplying increased promotion.

changes from price changes, expecting an increase in sales as consumers switch their purchases from other dealers in response to a price decrease or to lose sales as consumers switch purchases to other dealers in response to a price increase.

⁴⁸ In competitive equilibrium the dealer's quantity response to its price reduction multiplied by its lower profit margin will exactly equal the manufacturer's quantity response to a lower price multiplied by its larger profit margin. This is because the manufacturer and dealers, given their respective price elasticities of demand, will both adjust their prices so that, in equilibrium, their respective profit margins multiplied by the demand response will be equal. See Klein & Wright, *supra* note 42, equation (5).

B. MANUFACTURERS USE VERTICAL RESTRAINTS TO COMPENSATE DEALERS FOR INCREASED PROMOTION

The arrangements manufacturers implement to induce their dealers to supply increased brand-specific promotion are in most cases not contracts in the legal sense of a court-enforceable agreement, but are understandings in the economic sense of self-enforced expected performance. In particular, the actual contracts generally do not specify all elements of desired dealer performance with regard to the supply of promotional efforts, but often include guidelines and “best efforts” terminology. Moreover, independent of the degree of explicit contract specification, manufacturers generally will not take a dealer that does not perform as desired to court to demand performance. Rather than court enforcement, manufacturers will more commonly monitor dealer efforts, such as measuring individual dealer performance against comparable dealers or sending undisclosed representatives to check a dealer’s promotional efforts, and merely terminate dealers that they determine are not performing as desired and expected.⁴⁹

For example, in both *Beltone* and *Ryko* the manufacturer did not merely provide its dealers with promotional assets (in the form of individual customer sales leads in *Beltone* and a national sales effort to gasoline companies in *Ryko*) and then, as long as dealers did not engage in switching the manufacturer’s investments to the sale of other manufacturers’ products, leave it completely up to the dealers to decide how much complementary promotional efforts to supply. In addition to providing significant promotional investments to its dealers, *Beltone* and *Ryko* expected their dealers to supply adequate promotion necessary to complete a sufficient number of sales.⁵⁰ The manufacturers did not attempt court enforcement of dealer performance with regard to these

⁴⁹ Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOC. REV. 55 (1963), documents the common use of self-enforcement, that is, termination rather than court-enforcement, as the mechanism by which transactor performance is assured in many business arrangements. We assume in what follows that the manufacturer has the legal ability to terminate dealers at will or according to the minimum notice requirement in its dealer contracts. In some industries this ability is regulated by statute. For example, automobile dealers can sue in federal court for damages caused by an automobile manufacturer’s failure to act in good faith in terminating or not renewing them under the Automobile Dealer Franchise Act, 15 U.S.C. §§ 1221–1225, and gasoline dealers are protected against petroleum company terminations or non-renewals other than for certain specific reasons by the Petroleum Marketing Practices Act, 15 U.S.C. §§ 2801–2806. Moreover, a number of state laws impose a “good cause” requirement for terminations or non-renewals of franchisees, with some statutes also requiring the franchisor to give the franchisee notice of default and an opportunity to cure the defect.

⁵⁰ See *supra* note 36.

desired promotional efforts but merely terminated dealers that they determined were not performing as expected.⁵¹

The marketing arrangement that was the basis of another landmark Supreme Court exclusive dealing case, *Standard Fashion*, involved a greater degree of explicit contractual specification of a number of elements of desired dealer promotional efforts.⁵² As with most products that primarily involve intellectual property, *Standard Fashion* had a low marginal cost of producing additional copies of its existing patterns and, because it faced a negatively sloped demand for its somewhat unique patterns, a profit-maximizing wholesale price that was substantially above its marginal cost. Consequently, any incremental sales made by a retailer were highly profitable for *Standard Fashion*, and *Standard Fashion* desired its retailers to actively promote its products.⁵³ In addition to requiring the retailers that sold its dress patterns not to handle any competing patterns, *Standard Fashion* required its retailers to actively promote *Standard* patterns,⁵⁴ including specifically requiring retailers to provide a pattern department at “a prominent position on the ground

⁵¹ Evidence that Beltone terminated non-performing dealers is mentioned in *Beltone Electronics Corp.*, 100 F.T.C. 68, 226 (1982). Similar self-enforcement is described in *United States v. Dentsply International, Inc.*, 277 F. Supp. 2d 387, 414–15, 420 (D. Del. 2003), *rev'd*, 399 F.3d 181 (3d Cir. 2005), *cert. denied*, 126 S. Ct. 1023 (2006). *Ryko Manufacturing Co. v. Eden Services*, 823 F.2d 1215 (8th Cir. 1987), involved termination of a dealer, *Eden Services*, that violated the exclusive dealing requirement, as did *Roland Machinery Co. v. Dresser Industries*, 749 F.2d 380 (7th Cir. 1984), discussed *infra* text accompanying notes 71–76, where the manufacturer terminated a dealer after it moved to non-exclusive dealing. *Standard Fashion Co. v. Magrane-Houston Co.*, 258 U.S. 346 (1922), did not involve manufacturer termination of a dealer, but dealer termination of the manufacturer.

⁵² *Standard Fashion* involved the attempt by Magrane-Houston (a dry-goods retailer in Boston) to substitute the dress patterns of another pattern manufacturer, McCall, for *Standard Fashion*'s dress patterns. *Standard*'s exclusive contracts were not an economic obstacle to other manufacturers competing for distribution since the contracts were two years in duration and the particular contract with Magrane-Houston had already been running for four years. *Standard Fashion* sued to enforce its exclusive contract solely because Magrane-Houston had failed to provide the contractually required three-month notice of termination. 258 U.S. at 351–54.

⁵³ Although *Standard Fashion* had a 40 percent share of sales (*id.* at 357), it is not necessary for manufacturers to possess any market power for them to desire increased dealer promotion. See *supra* note 43. The desire for increased dealer promotion by firms without any market power is vividly illustrated by the fact that Royal Crown Cola, which possessed only 5 percent of cola sales (and a corresponding much smaller share of soda sales), desired increased promotion by its bottlers and used exclusive dealing to facilitate enforcement of this expectation. See *Joyce Beverages v. Royal Crown Cola Co.*, 555 F. Supp. 271 (S.D.N.Y. 1983); see also discussion *infra* note 77.

⁵⁴ *Standard Fashion*, 258 U.S. at 351–52.

floor in the store,”⁵⁵ a designated “lady attendant” to give “proper attention to the sale” of patterns,⁵⁶ and a minimum inventory level.⁵⁷

The fact that Standard Fashion contracted with its retailers for these specific point-of-sale promotional inputs is evidence that the retailers did not have the correct incentive to independently supply these desired promotional services to encourage Standard Fashion sales. The contractual specification of these particular elements of retailer performance does not mean that retailers thereby had the desired incentive to promote Standard Fashion’s products. Contracts are inherently incomplete, and there are other unspecified elements of desired retailer performance that must be assured by manufacturer compensation, monitoring, and self-enforcement of dealer performance.⁵⁸

In order for the self-enforced threat of dealer termination to assure dealer performance with regard to the supply of additional promotion, dealers must earn more by supplying the higher level of promotion expected and paid for by the manufacturer than they could earn by supplying the lower level of promotion they would find in their independent interests to supply. Therefore, manufacturers must establish an arrangement whereby dealers anticipate earning more than enough to cover their increased costs of supplying the higher level of promotion. In particular, if incentives are to be created for dealers to supply the higher level of promotion desired by the manufacturer, they must earn a profit premium over and above their increased costs of providing the desired level of promotion.⁵⁹

⁵⁵ *Id.* Pls. Ex. 7, Contract, Nov. 25, 1914, R. at 131.

⁵⁶ *Butterick Publ’g Co. v. William G. Fisher*, 203 Mass. 122, 131 (1909). Butterick was the owner of Standard Fashion.

⁵⁷ The required minimum inventory level involved a commitment by Magrane-Houston to purchase and have on hand at all times \$1,000 worth of Standard patterns, measured at net invoice prices, which were 50 percent of retail prices. This amounted to in excess of 10,000 patterns. *Standard Fashion*, 258 U.S. at 352. Dealer supply of adequate inventories is analytically similar to a type of promotional service in that inventory availability induces incremental manufacturer sales and, because dealers do not earn the full profit on such incremental sales, dealers will not have the incentive to bear the additional costs to carry the optimal level of inventories desired by the manufacturer. In addition to contractually specifying a minimum level of inventories and using exclusive dealing to prevent dealers from switching consumers to another brand when the manufacturer’s product is not available, manufacturers often will directly subsidize dealer inventory levels. For example, Standard Fashion credited Magrane-Houston at 90 percent of its cost for unsold, returned patterns that were exchanged for new stock. *Id.*

⁵⁸ Moreover, as we shall see *infra* Part IV.A., an economic incentive exists for retailers to use even the contractually specified promotional inputs that were paid for by the manufacturer, such as the “lady attendant” stationed on the ground floor, to sell alternative products, and such free-riding can be prevented by exclusive dealing.

⁵⁹ See, e.g., Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981).

A dealer profit premium is required for the self-enforcement mechanism to operate because each dealer, in deciding whether or not to perform according to manufacturer expectations by supplying the desired level of promotion, will compare the net present value of the profit from performing as expected, Π_p , with the net present value of the profit from not performing as expected, Π_N . Since dealers can earn extra profit for a time (before they are terminated by the manufacturer for non-performance) by not supplying the promotion they have been compensated for and only supplying the quantity of promotion it is in their narrow interests to provide, Π_N is positive. A non-performing dealer saves the extra net cost of supplying the higher, desired level of promotion (and may earn an increased margin on the products it switches consumers to) until the manufacturer detects non-performance and terminates the dealer.

A dealer will perform as expected if and only if these gains from not performing are less than the gains from performing.

$$\Pi_N < \Pi_p. \quad (2)$$

Therefore, to assure that the dealer performs as expected and supplies the desired level of promotional services, the dealer must earn a profit stream, the present discount value of which, Π_p , is greater than the short-term gain from not performing, Π_N . Consequently, the manufacturer must more than merely compensate dealers for their higher costs of providing increased promotion. Manufacturers must create a distribution arrangement where each dealer earns a profit premium stream above the higher costs of supplying the desired level of promotional services the present discounted value of which, Π_p , or what the dealer would lose upon termination, is greater than the short-run gain that can be earned by a dealer by not performing as expected, Π_N .

Making sure that Π_p is greater than Π_N so that dealers will find it in their economic interests to perform as expected with regard to the increased promotional efforts they have been compensated to supply is a primary economic role of vertical restraints.⁶⁰ For example, granting dealers, such as the Beltone and Ryko dealers, exclusive territories permits them to earn a profit premium as the sole supplier within an area. Π_p , the present discounted value of the profit premium stream earned by the dealer from the grant of the exclusive territory, is the capital value of the dealer's distributorship and also the potential sanction that the dealer will bear if it is terminated for non-performance.

⁶⁰ Klein & Murphy, *supra* note 42. See also Benjamin Klein, *Distribution Restrictions Operate by Creating Dealer Profits: Explaining the Use of Maximum Resale Price Maintenance in State Oil v. Khan*, 7 S. CT. ECON. REV. 1, 7-8 (1999).

When it is efficient to have a large number of dealers selling the manufacturer's product within an area, a manufacturer will not use an exclusive territory, as was used in *Bellone* and *Ryko*, to generate the required level of dealer compensation to assure dealer performance, *II*.⁶¹ Instead, a manufacturer may lower its wholesale price and use de facto minimum resale price maintenance to compensate dealers for increased promotion and ensure that inter-dealer price competition does not compete away dealer compensation.⁶¹ This is, in fact, how Standard Fashion compensated its retailers for the desired increased level of promotional efforts. In particular, Standard Fashion set its wholesale prices at 50 percent of retail label prices and contractually required its retailers "not to sell Standard Patterns except at labeled prices."⁶² Minimum resale price maintenance created a per-unit sales profit stream for Standard Fashion retailers that would cover the desired retailer-supplied promotion and prevent the profit stream from being competed away in lower retail prices by inter-retailer price competition. Standard Fashion's retailers knew that if they performed according to expectations and supplied the desired promotional efforts, they could expect to earn enough to cover their higher costs plus an added profit premium to assure performance.

If the costs of providing extra promotional services do not vary by sales (for example, the rent of a ground-floor location, the salary of attendants, and extra inventory), without minimum resale price maintenance each retailer would have the incentive to lower its price to capture sales made by other dealers to infra-marginal consumers who knew they wished to

⁶¹ Klein & Murphy, *supra* note 42. This role of resale price maintenance as a way for the manufacturer to provide sufficient compensation to dealers for supplying increased promotion explains the use of resale price maintenance in the distribution of products where the standard explanation for resale price maintenance as a way to prevent inter-dealer free-riding described in Telser, *supra* note 38, is not applicable. For example, Robert Pitofsky uses the examples of cosmetics, over-the-counter pharmaceuticals, blue jeans, and men's underwear as products where resale price maintenance has been used but where consumers do not require the pre-purchase demonstration and explanation such as is required for complicated audio and video equipment that the standard inter-dealer free-riding model uses to justify resale price maintenance. Robert Pitofsky, *Are Retailers Who Offer Discounts Really "Knaves"?: The Coming Challenge to the Dr. Miles Rule*, 61 ANTITRUST, Spring 2007, at 63. However, these products require the supply of retailer brand-specific promotional services, including shelf space display, to induce profitable increased manufacturer sales. For example, prominent display of men's underwear will cause some consumers to purchase the displayed product who would not otherwise do so. But since the inter-retailer effects of such retailer promotion are likely to be relatively small (consumers are unlikely to choose a department store because it prominently displays men's underwear), retailers will not have the correct incentive to supply the desired, profit-maximizing quantity of the promotion from the manufacturer's point of view. Therefore, manufacturers must effectively compensate retailers for supplying additional promotion, which is the economic purpose served by resale price maintenance in these and other cases.

⁶² *Standard Fashion*, 258 U.S. at 352.

purchase the particular product and were price-sensitive. However, if uncontrolled, this price competition between retailers would eliminate Standard Fashion's compensation of retailers for supplying the desired extra promotional services necessary to increase incremental sales to marginal consumers.⁶³

Whether a manufacturer provides its dealers with significant promotional investments and also pays its dealers for supplying additional complementary brand-specific promotional services, as in *Beltone* and *Ryko*, or uses an arrangement where it does not provide any investments to dealers but solely compensates dealers for undertaking additional brand-specific promotional efforts, as in *Standard Fashion*, the essential nature of the arrangement is the same—the manufacturer is compensating its dealers to supply additional promotion. In *Beltone* and *Ryko* the expectation was that each dealer would use the promotional leads provided by the manufacturer in combination with its own promotional efforts to sell Beltone hearing aids or Ryko car-washing equipment in return for the additional compensation yielded by a valuable exclusive territory. In *Standard Fashion* there was a similar expectation that the dealer would provide additional promotion to sell Standard Fashion patterns in return for manufacturer compensation with resale price maintenance. Given that manufacturers compensate their dealers for providing additional brand-specific promotion, we now turn to the question of why exclusive dealing also is used in these arrangements.

⁶³ This problem where price competition for infra-marginal consumers competes away the manufacturer's compensation of retailers for supplying increased promotion occurs even if discounting retailers are supplying desired promotional services and infra-marginal consumers do not go to a full-service retailer before purchasing the product at discount, low-service retailers, as in standard inter-dealer free-riding described in *Sylvania*, *supra* note 15. Dealers that supply the desired quantity of promotional services but lower price are free-riding on the manufacturer's compensation arrangement and on other dealers because they increase their sales to infra-marginal consumers who would have purchased the product from other dealers. Dealers that reduce price, therefore, are over-compensated for supplying the desired level of promotion, while other dealers that have lost these infra-marginal sales will be under-compensated for supplying the desired promotion. Therefore, dealers are free-riding on other dealers not in the *Sylvania* sense of using the services provided by other dealers without paying for them, but by taking the compensation the manufacturer has provided to other dealers for supplying services, leading other dealers to either reduce their promotional efforts below the desired level or to stop marketing the manufacturer's products. This likely explains the use of resale price maintenance in *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 171 F. App'x 464 (5th Cir.), 2006 WL 690946 (unpublished opinion), *cert. granted*, 127 S. Ct. 763 (2006) (U.S. Dec. 7, 2006) (No. 06-480). Resale price maintenance had the effect of preserving Leegin's extensive distribution network. The preservation of an adequate retail distribution network, and the fact that a majority of retail druggists had dropped (or ignored) its products as unprofitable, was a primary stated rationale for *Dr. Miles'* institution of resale price maintenance. *Dr. Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373, 375 (1911).

IV. DEALER FREE-RIDING IN THE ABSENCE OF MANUFACTURER-SUPPLIED PROMOTIONAL INVESTMENTS

A. DEALER FREE-RIDING TYPE TWO: USING MANUFACTURER PAID-FOR PROMOTION TO SELL ALTERNATIVE PRODUCTS

In *Beltone* and *Ryko* the potential exists for dealers to free-ride by using manufacturer-supplied promotional investments to sell alternative products. However, in these cases, as well as in *Standard Fashion*, another form of potential dealer free-riding exists where dealers may use the extra promotion paid for by the manufacturer to sell alternative products. The profit incentive for dealers to engage in this type of free-riding is the same as the profit incentive to engage in the standard free-riding on manufacturer-supplied promotional investments, namely, that alternative products are likely to have higher dealer profit margins. In particular, as described in Part II, dealers will be able to purchase alternative products for lower wholesale prices because manufacturers of such substitute, lower-brand value products do not bear the costs of either supplying direct promotion or purchasing increased dealer promotion. Therefore, a dealer may be able to earn more if it can convince consumers to purchase the alternative products.

For example, retailers selling *Standard Fashion* patterns would have had a profit incentive to use the sales staff, floor space, and other inputs paid for by *Standard Fashion* to switch consumers to a competing pattern that the retailer makes more profit on and can describe to consumers as “just as good.” Although the dealer free-riding motivation is the same as in the standard type one free-riding case, dealer behavior does not appear to fit the standard free-riding framework because there need not be any manufacturer-supplied investments that dealers are using to sell alternative products. However, although the promotional investments are provided by the dealers and not the manufacturer, it still amounts to dealer free-riding because the dealers’ promotional investments have been paid for by the manufacturer.⁶⁴

Since the manufacturer compensates dealers for promotion contingent on the dealer’s sales of the manufacturer’s products, a dealer that switches consumers to another manufacturer’s products may not appear

⁶⁴ Howard Marvel justifies exclusivity in *Standard Fashion* by focusing on the intellectual property investments made by *Standard Fashion* in the initial creation of dress pattern designs. Marvel, *supra* note 13. If popular designs easily could have been copied by rival manufacturers that had not made these investments, this explains why lower cost alternative products would have been available to retailers that engaged in free-riding, either type one or type two free-riding. Exclusive dealing prevented retailers that were

to be free-riding because the manufacturer compensation of the dealer will thereby be reduced. However, as described above, manufacturer compensation of dealers for providing promotion often takes the form of an extra profit margin on all the dealer's sales of the manufacturer's products achieved with the grant of an exclusive territory (as in *Belton* and *Ryko*) or the use of minimum resale price maintenance (as in *Standard Fashion*). A consequence of such compensation arrangements is that a dealer that switches sales to alternative brands will be paid less by the manufacturer. But dealers will still have an incentive to switch their promotional efforts to the sale of alternative brands because they are compensated for their increased promotional efforts on the basis of a profit premium earned on their *total* sales of the manufacturer's products, not on the difficult to measure incremental sales produced by their extra promotional efforts. Hence, dealers will continue to receive most of the manufacturer's payment for increased promotional efforts yet use this promotion to sell more profitable alternative products.

This analysis implies that a potential free-riding problem exists in cases where the manufacturer has not provided significant promotional investments to dealers. Free-riding occurs not because dealers use the promotional investments supplied by the manufacturer to sell alternative products but, equivalently, because dealers use their own promotional investments paid for by the manufacturer to sell alternative products. Exclusive dealing prevents this second type of free-riding in the same way as exclusive dealing prevents free-riding in the standard case—by preventing dealer switching. Whether dealers are prevented from using the promotional assets supplied by the manufacturer or paid for by the manufacturer to switch consumers to alternative products, the procompetitive motivation for exclusive dealing is the same. Therefore, contrary to the standard economic analysis of exclusive dealing, it is not necessary that there exist manufacturer investments that dealers may free-ride upon to justify the use of exclusive dealing to prevent dealer free-riding.

B. ALTERNATIVE COMPENSATION ARRANGEMENTS FOR INCREASED DEALER PROMOTION

An obvious question is why manufacturers adopt compensation arrangements for increased dealer promotion that are based on total dealer sales and thereby create an inherent free-riding problem. Despite

selling Standard Fashion patterns from engaging in free-riding, but exclusive dealing would not have prevented other pattern manufacturers (either full-line manufacturers, such as McCall, or groups of limited-line manufacturers that together can supply retailers with a full line of patterns) from copying Standard's successful patterns.

this free-riding problem, manufacturer compensation arrangements based on total dealer sales were used in *Beltone*, *Ryko*, and *Standard Fashion* because such arrangements make economic sense when it is difficult to more directly measure and contract with dealers on the basis of the incremental sales effects of increased dealer promotional efforts. These measurement difficulties are especially significant when dealer sales of a manufacturer's products are expected to vary over time and across dealers. In such circumstances a vertical restraint contractual compensation arrangement, as was used in these cases, provides a reasonable dealer compensation measure if the manufacturer's desired increased level of dealer promotion results, for example, in a similar proportional increase in every dealer's sales of the manufacturer's products. However, every dealer will still have an incentive to free-ride by using the costly additional promotional efforts paid for by the manufacturer to sell more-profitable alternative products while continuing to collect most of the manufacturer's compensation on infra-marginal sales. Therefore, the vertical restraint compensation arrangement is combined with exclusive dealing to mitigate the free-riding.⁶⁵

In some circumstances, however, exclusive dealing may have the disadvantage of increased distribution costs. Specifically, dealers may lose sales to consumers who highly prefer alternative brands and may be willing to switch dealers when an exclusive dealing arrangement is used. These increased distribution costs will be fully internalized by manufacturers when they choose a contractual arrangement with dealers. Manufacturers will choose the most efficient contractual arrangement because they will bear any increased distribution costs associated with exclusive dealing since they must compensate dealers for any extra costs associated with handling a single brand if they are to get dealers to adopt exclusivity.⁶⁶

Manufacturers may attempt to reduce any increased distribution costs associated with exclusive dealing while continuing to prevent the second type of potential dealer free-riding problem by adopting alternative types

⁶⁵ A systematic historical survey of exclusive dealing contracts indicates that resale price maintenance has frequently been used in conjunction with exclusive dealing. See Thomas R. Overstreet, Jr., *Resale Price Maintenance: Economic Theories and Empirical Evidence*, Bureau of Economics Staff Report to the Federal Trade Commission 84-101 (1983). This is because those products for which exclusive dealing was required to prevent dealer switching of promotional efforts to the sale of alternative products were also products for which manufacturers demanded and compensated dealers for additional promotional efforts.

⁶⁶ Full internalization of increased distribution costs assumes that exclusive dealing produces no anticompetitive effects that benefit the manufacturer and, therefore, will influence its contractual choice. We modify this assumption of no anticompetitive effects of exclusive dealing in the discussion of Dentsply's exclusive dealing contracts, *infra* Part V.D.

of distribution arrangements. For example, a partial exclusive dealing arrangement, where a manufacturer requires that sales of the manufacturer's product comprise a certain percentage of the dealer's sales, say 75 percent, prevents dealers from fully substituting lower cost alternatives to the manufacturer's products yet leaves the option for dealers to carry other, highly demanded brands. If a consumer prefers an alternative brand, the consumer will have the option to purchase that brand at the dealer under this arrangement. Partial exclusives, therefore, sometimes may be more efficient arrangements for reducing potential dealer free-riding problems, especially when the costs of full exclusive dealing in terms of lost dealer sales are relatively high.

Another way to reduce the dealer costs associated with exclusive dealing is to adopt a loyalty discount or volume rebate type of arrangement. In addition to reducing dealer costs that are ultimately borne by the manufacturer, loyalty discount arrangements more precisely focus dealer compensation on the desired additional dealer promotional efforts by providing dealers price discounts as a function of a dealer's incremental sales of a manufacturer's product. For example, if a manufacturer knows what share of a dealer's sales it is likely to achieve in the absence of the desired additional dealer promotion, the manufacturer may be able to design a dealer promotional payments schedule that provides dealer wholesale price discounts for sales above that sales share. By compensating dealers with price discounts based on the incremental sales induced by dealer promotional efforts, the manufacturer is reducing the incentive of dealers to engage in the second type of free-riding. If the dealer switches its promotional efforts to an alternative product, its compensation from the manufacturer for increased promotion will be substantially reduced.⁶⁷

However, there also are economic disadvantages associated with these alternative dealer compensation arrangements compared to full exclusive dealing contracts. First of all, as noted above, it may be difficult to specify the particular partial exclusive sales share or the sales share when promotional discounts should begin. Individual dealers differ with regard to their sales levels, the quantity of promotion they will find in their independent interests to supply, the effect of increased promotion

⁶⁷ See, for example, *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1045 (8th Cir. 2000), which involved purchase share discounts provided by Brunswick, the maker of MerCruiser brand stern drive boat engines, to induce its dealers to promote its engines. Price discounts may be offered on a sliding scale for additional units purchased. Alternatively, discounts may go back to the first unit purchased, which implies low effective prices on the particular unit at which a purchase share necessary for a price discount is reached. These contracts are described as de facto or partial exclusive dealing in Willard Tom, David A. Balto & Neil W. Averitt, *Anticompetitive Aspects of Market-Share Discounts and Other Incentives to Exclusive Dealing*, 68 ANTITRUST L.J. 615 (2000).

on increased sales, and the variability of these factors over time. If the share cutoff is set too high, the dealer will provide no additional promotion whatsoever; if it is set too low, a free-riding problem arises similar to when a vertical restraint is used to compensate dealers on all sales. In addition, using a compensation arrangement that has low incremental wholesale prices increases the incentive of dealers to engage in the inter-dealer price discounting free-riding described above,⁶⁸ where dealers lower their prices in an attempt to reach the sales level where a manufacturer's price discount kicks in, thereby "stealing" sales from other dealers rather than by promoting sales of the manufacturer's products at the expense of rival brands.⁶⁹

Moreover, a full exclusive dealing contractual arrangement has the additional advantage of decreasing the manufacturer's costs of monitoring dealers compared to the alternatives of a partial exclusive dealing or loyalty discount arrangements. For example, consider the Beltone dealer contractual arrangement. Because an exclusive was included in the contract, representatives from Beltone who policed dealers could much more easily detect a non-performing dealer. If a Beltone representative observed a product from another hearing aid company offered by a Beltone dealer, he or she could infer that the dealer was not performing and, therefore, the manufacturer could terminate the dealer without determining if the dealer actually was switching customers produced by Beltone-supplied leads to competing brands. Exclusive dealing, therefore, serves the economic purpose of defining dealer performance in a way that the manufacturer's cost of monitoring and detecting dealer non-performance is substantially reduced compared to alternative ways the manufacturer can assure dealer performance.⁷⁰

Alternatively, when dealer compensation involves price discounts based on manufacturer sales share or a minimum sales share, manufacturers have to more closely monitor dealer sales of all brands, rather than

⁶⁸ *Supra* note 63.

⁶⁹ Dealers also have the incentive under sliding-scale price discount arrangements to purchase increased quantities at lower prices and transship to other dealers that are sharing the discounts.

⁷⁰ In terms of the self-enforcement model summarized by equation (2), because exclusivity makes it easier for the manufacturer to detect dealer non-performance, this reduces the potential dealer short-run gain from free-riding, Π_N , and hence reduces the required premium stream the manufacturer must pay the dealer in order to assure dealer performance. Therefore, exclusivity reduces the costs to Beltone of self-enforcing dealer performance by decreasing the amount of profit it must share with dealers, for example, by granting dealers larger or otherwise more profitable dealerships. See Benjamin Klein & Lester Saft, *The Law and Economics of Franchise Tying Contracts*, 28 J.L. & ECON. 345 (1985), for a discussion of this reduced monitoring cost rationale for exclusive input requirements contracts in franchise arrangements.

merely determining if the dealer is selling any quantity of any other brand than the manufacturer's. Furthermore, as we shall now see, full exclusive dealing has the added benefit of increasing the independent incentive of dealers to perform, thereby reducing manufacturer monitoring costs even further.

V. DEALER FREE-RIDING IN THE ABSENCE OF DEALER SWITCHING

A. DEALER FREE-RIDING TYPE THREE: FAILING TO SUPPLY THE PROMOTION PAID FOR BY THE MANUFACTURER

The fact that dealers often are compensated by manufacturers for supplying promotion on the basis of their total sales implies that dealers also have an incentive to engage in a type of free-riding that does not involve switching sales to another manufacturer's products. In particular, dealers have the incentive not to supply the increased level of promotion paid for by the manufacturer. Dealers that reduce their promotional efforts save the cost of providing the extra promotion that is not in their economic interests to supply, but continue to receive manufacturer compensation on the infra-marginal sales they make without any extra promotion.

This potential free-riding problem, where dealers do not supply the full promotional effort expected and paid for by the manufacturer, exists in all the cases we have discussed where the manufacturer is partially paying dealers for added promotion with a restricted distribution arrangement. Because restricted distribution arrangements compensate dealers on the basis of all their sales, including the infra-marginal sales that would be made without their additional promotional efforts, an incentive exists for the dealer not to supply the additional promotion. Therefore, if the manufacturer uses an exclusive territory (*Ryko, Beltone*) or resale price maintenance (*Standard Fashion*) to pay dealers for supplying extra promotion, the very nature of the promotion compensation arrangement creates an incentive for dealers to supply less promotion than compensated for, even when there is no possibility of a dealer switching its promotion to alternative brands.

To illustrate these economic forces, consider another important exclusive dealing case, *Roland Machinery*.⁷¹ The case dealt with the sale of construction equipment by Roland Machinery Company, a distributor of

⁷¹ *Roland Mach. Co. v. Dresser Indus.*, 749 F.2d 380 (7th Cir. 1984).

International Harvester's line of construction equipment. Since the production of construction equipment has relatively high fixed costs and the wholesale price charged by Dresser Industries (which acquired International Harvester's construction equipment business) was greater than marginal cost, it is likely that Dresser desired its dealers to provide greater point-of-sale promotion to induce profitable incremental sales than the dealers would independently supply on their own. Dresser compensated its dealers for these extra promotional efforts by limiting the number of dealerships and granting each dealer a profitable, relatively large exclusive marketing territory. For example, Roland Machinery was the sole International Harvester distributor serving the forty-five-county area of central Illinois.⁷²

In contrast to the exclusive territory arrangements granted in *Beltone* and *Ryko*, Dresser's distributor contracts did not explicitly specify exclusive dealing. However, Dresser enforced its termination-at-will distributor contracts as if exclusivity was expected. In particular, only eight months after signing its distribution agreement with Dresser, Roland Machinery applied for a dealership from Komatsu, a Japanese manufacturer of competitive construction equipment.⁷³ Immediately after Roland Machinery signed its Komatsu distribution agreement, Dresser notified Roland that it planned to terminate its International Harvester distributorship under the terms of its distribution agreement where termination could occur without cause on ninety days' notice.⁷⁴

Although the contractual arrangement involved Dresser compensating Roland for extra dealer promotion of International Harvester equipment, it is not obvious that an economic incentive existed for Roland to use this extra promotion paid for by Dresser to promote Komatsu machines by switching consumers from International Harvester to

⁷² *Id.* at 381.

⁷³ *Id.* at 381–82.

⁷⁴ The appeals court in *Roland Machinery* held that there was no evidence of an exclusive dealing agreement between Dresser and Roland (or any other distributor). Although the evidence indicates a clear preference by Dresser for distributor exclusivity, the fact that Roland openly obtained a Komatsu dealership indicated to the court that Roland did not believe it had made a commitment to exclusivity. While Dresser desired distributor exclusivity and, in fact, was extremely hostile to nonexclusive arrangements, as evidenced by its termination of Roland, the court held that there was no "meeting of minds" and, therefore, no agreement. *Id.* at 392–93. In addition to denying the existence of an exclusive dealing agreement, the court concluded that, even if such an agreement existed, it would not have been anticompetitive since Dresser Industries manufactured only 16 or 17 percent of the construction equipment sold in Roland's territory of central Illinois. *Id.* at 382. Furthermore, the court concluded that Dresser's contracts were short term and could not foreclose Komatsu, the second-largest manufacturer of construction equipment in the world, from the market. In fact, Komatsu had already obtained effective distribution and become a major factor in the U.S. market. *Id.* at 393–95.

Komatsu. In contrast to the first and second types of free-riding that involve switching consumers to a low-cost, unadvertised alternative product, Komatsu was not a low-cost product for which Roland could expect to make more money switching buyers. Moreover, there was no evidence presented that Roland had engaged in switching those demanding International Harvester equipment to Komatsu.

Dresser's motivation was not to prevent free-riding. Rather, Dresser maintained, it preferred exclusive dealing because it wished to distribute through dealers that had "undivided loyalty" and, therefore, an increased incentive to promote its products.⁷⁵ In contrast to the rejection of this rationale for exclusive dealing in *Dentsply*, the court accepted an undivided loyalty procompetitive rationale for exclusive dealing in *Roland Machinery*, concluding that "exclusive dealing leads dealers to promote each manufacturer's brand more vigorously than would be the case under nonexclusive dealing."⁷⁶ This can be interpreted economically as using exclusive dealing to prevent the potential free-riding problem we are discussing here in this section, where dealers do not switch customers to alternative products but merely fail to supply the full promotional effort paid for by the manufacturer.

B. DOES "UNDIVIDED DEALER LOYALTY" MAKE ECONOMIC SENSE?

The undivided loyalty rationale for exclusive dealing accepted by the court in *Roland Machinery* has been accepted by a number of other courts. For example, a similar rationale for exclusive dealing arrangements was accepted in *Joyce Beverages v. Royal Crown Cola*.⁷⁷ Royal Crown Cola's requirement that its bottler distributors not carry any other cola brand was justified as a way to encourage distributors to use their "best efforts . . . to achieve maximum distribution and sale."⁷⁸ The court therefore concluded that the exclusive dealing arrangement had the effect of increasing rather than inhibiting competition because it "insures that the bottler devotes undivided loyalty to its particular brand and that it competes vigorously against all competing brands."⁷⁹ Identical reasoning also

⁷⁵ *Id.* at 395.

⁷⁶ *Id.*

⁷⁷ *Joyce Beverages, Inc. v. Royal Crown Cola Co.*, 555 F. Supp. 271 (S.D.N.Y. 1983).

⁷⁸ *Id.* at 273.

⁷⁹ *Id.* at 278. Royal Crown Cola bottlers were partially paid for supplying extra promotional efforts with the grant of a valuable exclusive territory that would have been lost if Royal Crown terminated a bottler for failure to adequately "compete for shelf space, display racks, promotional rotations and the placement of feature advertising." *Id.* at 275. The exclusive dealing requirement clearly had nothing to do with anticompetitive foreclosure because Royal Crown Cola had only a 5 percent share of U.S. cola sales. *Id.* at 273.

was used to justify the exclusive in *Hendricks Music Co. v. Steinway*, where the court held that “it is perfectly legitimate, and, in fact, procompetitive, for manufacturers to insist that their dealers devote undivided loyalty to their products and not to those of their competitors.”⁸⁰

The idea that exclusive dealing encourages dealer promotion by creating dealers that have undivided loyalty is intuitively appealing. It is also consistent with the marketing literature, which recognizes that manufacturers may use exclusive dealing where they “hope to obtain more dedicated and knowledgeable selling.”⁸¹ However, in spite of its intuitive appeal, the reasoning does not have a rigorous economic basis. In fact, Howard Marvel makes a cogent argument in his classic exclusive dealing paper that an undivided loyalty rationale for exclusive dealing makes no economic sense.⁸²

Marvel assumes that the only occasion when dealers may not provide adequate point-of-sale services to consumers is when they are taking advantage of the efforts of other dealers by engaging in the inter-dealer free-riding that was the focus of *Sylvania*. In these circumstances dealers do not provide product demonstrations and other valuable consumer services but free-ride on other dealers that provide the services to consumers.⁸³ However, Marvel correctly argues that exclusive dealing would not solve this type of inter-dealer free-riding problem since dealers that handle only one brand still have the incentive not to supply services to consumers and to free-ride on the promotion provided by full-service dealers.⁸⁴ More importantly, Marvel further argues that if there is not an inter-dealer free-riding problem, dealers will have adequate incentives to provide services to consumers.⁸⁵

⁸⁰ *Hendricks Music Co. v. Steinway, Inc.*, 689 F. Supp. 1501, 1514, 1545–48 (N.D. Ill. 1988).

⁸¹ PHILLIP KOTLER, *MARKETING MANAGEMENT* 513 (11th ed., 2003).

⁸² Marvel, *supra* note 13, at 3–5.

⁸³ *Id.*

⁸⁴ “The free-rider problems facing exclusive and multiline dealers are identical.” *Id.* at 5. Marvel, therefore, concludes that “exclusive dealing is not an efficient means by which to promote increases in dealer services.” *Id.* at 4.

⁸⁵ *Id.* at 3–5. An indication of the impact of Marvel’s rejection of the undivided loyalty rationale for exclusive dealing can be obtained by examining the changes over time in industrial organization textbooks on this issue. For example, an undivided loyalty rationale for exclusive dealing was included in the 1980 edition of F.M. Scherer’s popular textbook, *Industrial Market Structure and Economic Performance*, which states (at 886) that “[f]or manufacturers, exclusive dealing arrangements are often appealing, because they ensure that their products will be merchandised with maximum energy and enthusiasm.” F.M. SCHERER, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 886 (2d. ed. 1980). This rationale for exclusive dealing was removed from later editions of the same textbook. See F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* (3d. ed. 1990).

The *Dentsply* court relied on Marvel's analysis to reject Dentsply's attempt to justify its exclusive contracts with dealers on the basis of "the need for dealers to focus their efforts in order to effectively promote the company's teeth and service laboratory customers."⁸⁶ Dentsply was unfortunate enough to have had a judge that was cognizant of the state of economic knowledge on this issue, who noted that "Prof. Marvel has not endorsed this particular rationale for exclusive dealing. . . . To the contrary, he stated in his 1982 paper that enhancing dealer services cannot be the justification for exclusive dealing."⁸⁷ The court fully accepted Marvel's economic reasoning in rejecting Dentsply's undivided dealer loyalty rationale for exclusive dealing, concluding that "[t]he 'focus dealer services' rationale is not a valid justification for using exclusive dealing in the tooth industry because dealers have every incentive on their own to make sure that their level of service for any given tooth brand does not suffer If a customer is dissatisfied with the service it receives from one Dentsply dealer, it will simply buy [Dentsply] teeth from another dealer."⁸⁸

Judge Posner in *Roland Machinery* attempted to provide an economic explanation for the undivided loyalty rationale for exclusive dealing in concluding that Dresser had "a plausible argument that an exclusive dealer would promote its line more effectively than a nonexclusive dealer, and by doing so would increase competition in the market for construction equipment."⁸⁹ He argued that by granting Roland Machinery an exclusive territory in central Illinois, Dresser had put "all of its eggs . . . in the Roland basket," and therefore if Roland did not actively promote Dresser products, Dresser would not have another dealer to "fall back on."⁹⁰ Because Dresser would suffer a significant decrease in sales if Roland did not promote Dresser products, this gives Dresser an

⁸⁶ *United States v. Dentsply Int'l, Inc.*, 277 F. Supp. 2d 387 (D. Del. 2003), *rev'd*, 399 F.3d 181 (3d Cir. 2005), *cert. denied*, 126 S. Ct. 1023 (2006). Dentsply claimed that in its experience, "the greater the number of competing tooth lines carried, the less likely that a dealer will be able to sustain all of the desired services and promotional elements at a high competitive level. In short, service and promotional support for a particular line is likely to suffer the greater the number of lines carried." GX 157 at Interrogatory Response No. 13 (*cited in Dentsply*, 277 F. Supp. 2d, United States' Brief in Support of its Proposed Findings of Fact and Conclusions of Law at par. 332).

⁸⁷ *Dentsply*, 277 F. Supp. 2d at 441. This is why an undivided loyalty rationale for exclusive dealing was not presented by Marvel in his testimony, but in Dentsply answers to interrogatories (GX 157 at Interrogatory Response No. 13) and by a Dentsply executive (D.I. 429 at 1719-20).

⁸⁸ *Id.*

⁸⁹ *Roland Mach. Co. v. Dresser Indus.*, 749 F.2d 380, 395 (7th Cir. 1984).

⁹⁰ *Id.*

economic reason to “want that dealer to devote his efforts entirely to selling Dresser’s brand.”⁹¹

Judge Posner, however, does not explain why manufacturers often want dealers to distribute their products exclusively even when the dealers have not been granted exclusive territories and, therefore, the manufacturer has other dealers in an area to “fall back on.” Moreover, even when, as in *Roland*, a manufacturer puts all its eggs in an area in a particular dealer’s basket by granting the dealer an exclusive territory, Judge Posner does not tell us why such dealers do not have an independent economic incentive to adequately promote the manufacturer’s products absent exclusive dealing. Furthermore, assuming dealers do not have an adequate independent incentive to promote the manufacturer’s products, Judge Posner does not fully explain how exclusive dealing works to incentivize such dealers to increase their promotional efforts. Judge Posner notes that *Roland*’s acceptance of an exclusive dealing contract “indicates [*Roland*’s] commitment to pushing that brand; he doesn’t have divided loyalties. . . . If the dealer carries several brands, his stake in the success of each is reduced.”⁹² Although Posner correctly describes exclusive dealing as creating a situation where the dealer’s success depends solely on the sales of the manufacturer’s products, this does not economically explain why such a dealer will then find it in its interests to increase its promotion of the exclusive brand.

In sum, while it may seem intuitively appealing that a manufacturer may use exclusive dealing to create a dedicated distribution arrangement so that dealers with undivided loyalties increase their promotional efforts, the existing economic literature does not provide us with an explanation of (1) why manufacturers often want their dealers to provide more promotion than the dealers would otherwise find in their independent economic interests to provide or (2) how exclusive dealing induces dealers to increase their promotional efforts. Question (1) was answered in Part III.A., and we now turn to question (2).

C. EXCLUSIVE DEALING MITIGATES FREE-RIDING TYPE THREE BY INCREASING DEALER INCENTIVES TO PROMOTE

To understand how exclusive dealing creates an incentive for dealers to more actively promote the manufacturer’s product in a case like *Roland Machinery*, consider the analogous example of automobile manufacturers that, in order to fully take advantage of the significant profit they can

⁹¹ *Id.*

⁹² *Id.* (citing *Sulmeyer v. Coca-Cola Co.*, 515 F.2d 835, 840 n.2 (5th Cir. 1975)).

earn on incremental sales, wish to have their dealers provide more brand-specific promotion than the dealers would independently decide to supply. For example, an automobile manufacturer may desire its dealers to hire a larger number of knowledgeable and persuasive salespeople who will spend a greater amount of time describing and demonstrating the advantages of its products and supplying test drives to “marginal consumers” than the dealer would otherwise supply. Automobile manufacturers, therefore, must create a distribution arrangement where their dealers are compensated for supplying an increased quantity of such brand-specific dealer promotional activity.

The usual contractual arrangement an automobile manufacturer enters with its dealers for additional dealer-supplied promotional activity involves specification of some elements of dealer performance (perhaps the particular location and size of dealership, hours of operation, etc.). Other elements of dealer performance may only be vaguely stated in terms of a requirement that dealers make their “best efforts” to promote the manufacturer’s products, while other elements of manufacturer expectations regarding dealer performance will remain largely unspecified and measured primarily by *ex post* dealer sales performance. Manufacturers will compensate their dealers for providing additional brand-specific promotion in part by limiting the number of dealerships in each area. Because each dealership serves a particular geographic area, dealers are thereby granted a valuable franchise in the form of a profitable sales and aftermarket service business.⁹³ If the manufacturer does not believe a dealer is adequately promoting its products, the dealer’s allocation of automobiles will be reduced and, in extreme cases of dealer nonperformance, the dealer could be terminated.⁹⁴

An automobile dealer that handles multiple brands has an increased incentive to free-ride on the manufacturer’s compensation arrangement, but not by using the promotional resources that have been supplied or paid for by the manufacturer to switch consumers without strong brand preferences to lower-priced alternative products (free-riding types one and two). More relevantly, dealers may free-ride by not undertaking as much additional promotional effort in selling the manufacturer’s product as the manufacturer has paid for and expects the dealer to supply.

Consider, for example, a case where a customer who is leaning towards the purchase of a Honda comes into a Toyota dealership to

⁹³ While many consumers may comparison shop at multiple dealers before purchasing because of the significant size of the purchase, profitable after-sale service (including warranty work) will often be supplied by the most conveniently located dealer. Therefore, the grant of a limited exclusive territory will be a profitable asset.

⁹⁴ Automobile dealer termination is subject to federal regulation. *See supra* note 49.

check out the Toyota.⁹⁵ Toyota desires the salespeople at its dealers to take the time and make their “best efforts” to extol the advantages of Toyota compared to Honda. However, if the dealer’s salespeople have the ability to sell Hondas in addition to Toyotas, it will not be in their interests to undertake this extra promotional effort. It will be more economically rational for the salespeople to save the additional costs associated with the extra time and effort that would have to be expended to sufficiently increase the possibility of a Toyota sale and, instead, merely sell the Honda by telling the customer he is right, “Yes, Honda is better.” From the salesperson’s and the dealership’s point of view, everything else equal, there is a higher profit margin on the Honda sale because there are lower selling costs associated with the Honda sale. Although selling the Honda would increase the dealer’s profit, failing to actively promote Toyota products in this circumstance would violate the economic arrangement between Toyota and its dealer regarding desired dealer behavior. Toyota has provided its dealer with a valuable dealership and expects, in return, that the dealer will actively promote Toyota products, which the dealer has failed to do in this case.

Although the salesperson has not engaged in free-riding type one or two (discussed in Parts II and IV) by switching customers who are demanding Toyota products to an alternative, lower-cost product, this behavior is analytically similar to such free-riding. In the switching types of free-riding the dealer is actively promoting an alternative, low-cost product because the dealer’s profit margin on the alternative product is greater. In this third type of free-riding, the dealer decides not to promote the manufacturer’s products not because it costs the dealer less to purchase the alternative product, but because it costs the dealer less to sell the alternative product. Therefore, the dealer is similarly deciding to sell an alternative product that has a higher margin. A higher dealer margin exists, however, not because the dealer has a lower wholesale cost of purchasing the alternative product because the supplier of the alternative product has not borne the manufacturer’s costs of promotion, but because the dealer itself can save the costs of promoting the manufacturer’s product.

When the dealership is exclusive, the incentive of the dealer to violate manufacturer expectations by not supplying the paid-for promotion is substantially reduced because the Toyota dealer does not have the ability to sell the Honda initially favored by the customer. Therefore, if the dealer is to make the sale, it must promote the Toyota product. The

⁹⁵ The assumption that the customer is leaning towards a Honda before he enters the dealership is made for expositional clarity. The analysis does not depend on a customer having an *ex ante* preference for one brand relative to another. For instance, a customer may be uninformed regarding the benefits of each brand before entering the dealership.

exclusive dealing contract, therefore, serves the economic purpose of more closely aligning the incentives of the dealer with the incentives of the manufacturer by creating undivided dealer loyalty.

This analysis of undivided dealer loyalty can be presented more rigorously. Without exclusive dealing, when a customer leaning towards buying a Honda comes into the dealership to check out the Toyota, the dealer will choose the level of Toyota promotion that maximizes its expected net profit from making the Toyota sale. This can be represented by the following dealer profit function:

$$\max_S (M_T^D - M_H^D) \cdot p(S) - C(S). \quad (3)$$

That is, dealers will choose to supply a level of Toyota promotional services, S , so as to maximize their expected net return, where M_T^D is the dealer's profit margin from selling a Toyota, M_H^D is the dealer's profit margin from selling a Honda (which, in terms of defining a relevant benchmark, we can assume can be sold with little or no promotion), p is the dealer's probability of making the Toyota sale, which is assumed to be positively related to the amount of Toyota promotional services supplied by the dealer, $p'(S) > 0$, and C is the cost of promoting the Toyota, which is also a positive function of S , $C'(S) > 0$.

The profit maximizing level of Toyota promotion that a non-exclusive dealer chooses is given by:

$$C'(S) = p'(S)(M_T^D - M_H^D). \quad (4)$$

This indicates that dealers will invest in making Toyota promotional expenditures up to the point where the increased cost associated with providing increased promotion, $C'(S)$, equals the increase in the expected profitability of selling a Toyota, or the increased probability of making a Toyota sale as promotional expenditures are increased, $p'(S)$, multiplied by the dealer profit difference between a Toyota and Honda sale, $(M_T^D - M_H^D)$.

Equation (4) implies that if $M_T^D = M_H^D$, that is, the dealer's profitability of selling the Toyota and Honda are the same, it will never pay the dealer to promote the Toyota when a customer is leaning towards a Honda. There is no incremental profit associated with the supply of Toyota promotion. A dealer, and specifically a dealer's sales staff, would not waste its time and resources if it can make just as much money with less effort by selling a Honda.

On the other hand, if the dealer is an exclusive Toyota dealer, even when a customer is leaning towards the purchase of a Honda, the dealer will spend resources promoting the Toyota up to the point where:

$$C'(S) = p'(S)M_H^D. \quad (5)$$

The dealer will increase its promotional expenditures until the increased cost of the promotion is equal to the expected profitability of the promotion, that is, the increased probability of selling a Toyota multiplied by the profit margin on the incremental Toyota sale.

Therefore, even if the profit margin on selling a Toyota is not greater than on selling a Honda, the dealer will promote Toyota under an exclusive because if the dealer does not sell the Toyota, the dealer does not make any sale. In *Roland Machinery*, for example, the dealer's motivation to promote is altered under exclusive dealing because if the dealer does not make an International Harvester sale, it does not sell anything. Consequently, when a customer comes into an exclusive dealership, the manufacturer can be assured that the salesperson will promote the manufacturer's products more than if the dealership were not exclusive.

The dealer promotion supplied under an exclusive, given by (5), is still not equal to the manufacturer's profit-maximizing desired level of promotion, which occurs at

$$C'(S) = p'(S)M_T^M, \quad (6)$$

where M_T^M is the Toyota manufacturer's profit in selling an additional car. However, exclusive dealing clearly does move dealer promotion closer to this desired level by better aligning incentives than would a contractual arrangement without an exclusive.

Dealer incentives to promote under alternative contractual arrangements represented in equations (4)–(6) can be compared by transposing the equations so that the left-hand side of each equation is equal to $C'(S)/p'(S)$, the marginal cost of additional Toyota promotion divided by the increased probability of making a Toyota sale from the additional Toyota promotion. Dealers will choose a level of Toyota promotion where this ratio will equal the additional profitability of making a Toyota sale under the alternative conditions. These economic forces are illustrated in Figure 1, which plots $C'(S)/p'(S)$ as a function of the quantity of S .⁹⁶

⁹⁶ The shape of this curve is likely to be convex, which will be the case if, for example, there is declining effectiveness of promotional expenditures, $p''(S) < 0$, and the marginal cost of S is linear, so that $C''(S) = 0$.

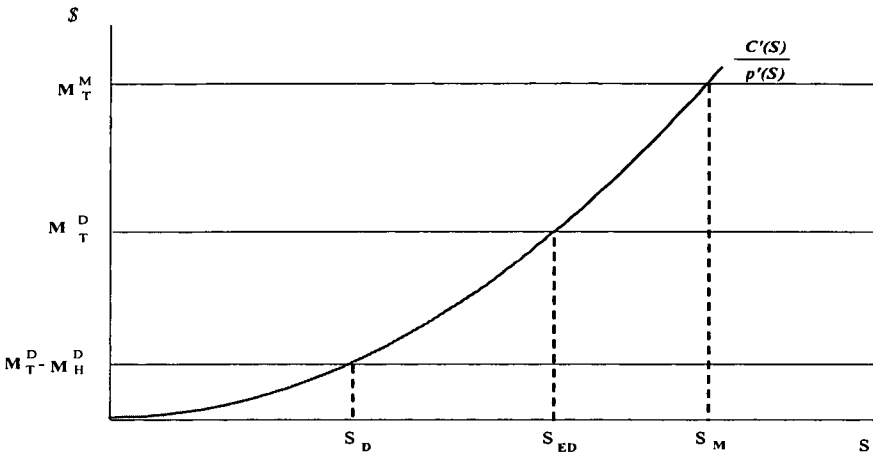


Figure 1. Promotional Effort Undertaken by Dealers Under Alternative Contractual Arrangements

Figure 1 indicates that without an exclusive dealing contract, the dealer will have an independent economic incentive to provide Toyota-specific promotional services equal to S_D . If M_T^D were equal to M_H^D , the dealer would not provide any additional brand-specific promotional services demanded by the manufacturer, that is, S_D would equal zero. More generally, the brand-specific promotional services the dealer will find in its independent economic interests to provide will be significantly lower than the level the manufacturer desires, S_M . Exclusive dealing moves the dealer incentive to supply the brand-specific promotional services desired by the manufacturer from S_D to S_{ED} because the dealer cannot save promotion costs necessary to make an incremental sale of the manufacturer's product by making an easy sale of a competing product. However, the exclusive, by itself, does not induce dealers to supply the amount of promotion that maximizes the profit of the manufacturer, S_M . The manufacturer must still monitor and self-enforce dealer performance to ensure that dealers go the remainder of the way and provide the manufacturer's profit-maximizing level of brand-specific promotional services.

Monitoring and enforcing dealer performance may occur, for example, by comparing a dealer's sales volume with the sales of other dealers, by using performance measures, such as customer surveys to determine sales and service satisfaction, and by providing dealers with a profit stream that can be lost or reduced by termination or a decrease in the dealer's supply of "hot" models. The fact that exclusive dealing moves dealers a significant portion of the way towards the desired level makes

it easier for the manufacturer to use these self-enforcement mechanisms. Specifically, because dealers operating under exclusive dealing find it in their own independent self-interests to supply increased promotion, the short-run dealer profit incentive to supply less than the desired level of promotional services, Π_N described in equation (2), is reduced. Therefore, the amount of costly manufacturer policing of dealers (which controls Π_N) and the required self-enforcing profit premium the manufacturer must pay dealers, Π_p , is also reduced by exclusive dealing.

It is important to recognize that it makes no economic sense to assert that the increased dealer promotion that is encouraged by exclusive dealing in this way involves steering consumers to their “less-preferred” choice. In our hypothetical example, the consumer preference for Honda is the consumer *ex ante* preference, before the dealer’s supply of Toyota promotional efforts. Dealer brand-specific promotion involves the provision of valuable product information to consumers to induce them to purchase a particular manufacturer’s product, and we can expect the dealers of other manufacturers in a competitive marketplace to supply competing product information. The competitive benefits of exclusive dealing in encouraging increased brand-specific dealer promotion are similar to the competitive benefits of exclusive dealing recognized by the FTC in *Belton* and the court in *Ryko* of creating an increased incentive for manufacturers to make promotional investments by permitting manufacturers to obtain the full return on their investments without free-riding dealers using the investments to sell other products. The economic advantage of encouraging manufacturer promotional investments by avoiding dealer free-riding type one in this way is analytically similar to the economic advantage of encouraging dealer promotional efforts by avoiding dealer free-riding types two and three. Exclusive dealing has the benefit of increasing the manufacturer’s incentive both to make and to purchase from their dealers desirable promotional investments that are an essential element of the competitive process.

D. ANALYSIS OF DENTSPLY’S USE OF EXCLUSIVE DEALING

Exclusive dealing may have been used by Dentsply to create dealers with undivided loyalty, which thereby would have incentives to increase their promotion of Dentsply products. That was the explanation for exclusive dealing provided by Dentsply in its dealer contracts.⁹⁷ It was

⁹⁷ Dentsply’s “Dealer Criterion Six” states that “in order to effectively promote Dentsply-York products, authorized dealers . . . ‘may not add further tooth lines to their product offering.’” *United States v. Dentsply Int’l, Inc.*, 399 F.3d 181, 185 (3d Cir. 2005).

also the explanation for exclusive dealing provided by Dentsply executives and in Dentsply's interrogatory responses.⁹⁸ Moreover, a similar undivided loyalty explanation was given for the use of exclusive dealing by one of Dentsply's primary competitors, Vita.⁹⁹

The court rejected an undivided dealer loyalty rationale for Dentsply's exclusive dealing primarily on the basis of Howard Marvel's economic analysis, which demonstrated that exclusive dealing does not encourage increased dealer services.¹⁰⁰ The Department of Justice's Proposed Findings of Fact, however, highlighted the importance of dealer promotion in the distribution of artificial teeth, a necessary component of an undivided dealer loyalty rationale. In particular, the Department of Justice emphasized that Dentsply relied significantly on its dealers to promote the sale of its products,¹⁰¹ and the appeals court accepted the fact that dealers had a significant role in promoting Dentsply products.¹⁰² The Department of Justice documented the important role of dealers in promoting a manufacturer's products in order to demonstrate that dealers were a key channel of distribution for artificial teeth and, hence, the anticompetitive effect of Dentsply's exclusive dealing contracts in foreclosing effective distribution to rivals. But in establishing the important role of dealers in promoting Dentsply products, the Department of Justice also established an important element of Dentsply's undivided loyalty justification for exclusive dealing.

⁹⁸ *Dentsply*, 277 F. Supp. 2d at 440–41 (citing GX 157 at Interrogatory Response No. 13 and D.I. 429 at 1719–20).

⁹⁹ The President of Vident, Vita's distributor in the United States, stated that he "considers the exclusivity agreement Vident has with Vita beneficial because it permits Vident's sales representatives to focus completely on the Vita line of products." *Id.* at 406.

¹⁰⁰ *Id.* at 441 (referring to Marvel, *supra* note 13).

¹⁰¹ "Dealers are an important conduit for supplier's promotional message." *Id.* United States' Brief in Support of its Proposed Findings of Fact and Conclusions of Law ¶ 85. "Dealers can assist suppliers in generating incremental business by promoting the manufacturer's product . . ." *Id.* ¶ 90. "Although each supplier employs sales representatives, dealer sales representatives add another 'voice in the marketplace.'" *Id.* ¶ 85. "Dealers refer new lab customers to supplier representatives." *Id.* ¶ 88. ". . . [D]ealers know about new customers and can provide valuable leads to its suppliers, leads that the suppliers would not have if they were selling teeth directly." *Id.* The significant role of dealers in promoting Dentsply's products also was highlighted by the Department of Justice's economic expert. *Id.* Expert Report of David Reitman, Ph.D., February 29, 2000, at 11–12.

¹⁰² *Dentsply*, 399 F.3d at 192–93. In addition to promoting Dentsply products to laboratories, an important "promotional" service provided by dealers was the maintenance of an adequate inventory of Dentsply teeth. As we have seen (*supra* note 57), dealer maintenance of adequate inventories is analytically similar to dealer supply of promotional services in that it induces incremental sales of the manufacturer's products. Artificial teeth come in a wide variety of shades, shapes, moulds, qualities, and other attributes. With exclusive dealing, dealers have the incentive to incur increased costs of maintaining an adequate level of inventories of the manufacturer's products because the dealer cannot substitute a competing manufacturer's product when a particular type of teeth is demanded by a lab.

Although there is evidence in the record that dealers had a significant role in promoting Dentsply's products, this does not by itself mean that the undivided dealer loyalty justification is applicable to Dentsply's exclusive dealing arrangements. Our analysis indicates that it is likely unconstrained dealers would not have the incentive to provide the amount of brand-specific promotion desired by the manufacturer. However, the evidence required to conclusively determine that an undivided dealer loyalty explanation for exclusive dealing is valid was not fully developed at trial. This failure can be attributed to the fact that both the economic analysis of Marvel and the Department of Justice, as well as the ultimate court decisions, focused entirely on whether Dentsply made promotional investments that dealers could free-ride upon. There was no attempt to determine if exclusive dealing facilitated an arrangement whereby Dentsply compensated dealers for providing additional promotion.

What may be inconsistent with the undivided dealer loyalty hypothesis is the lack of any evidence that Dentsply's grandfathered dealers were less effective at promoting Dentsply products to laboratories, despite the fact that grandfathered dealers carried competing brands of teeth.¹⁰³ It is unlikely, however, that Dentsply did not in some way limit the expansion of competing product sales by these grandfathered dealers, which included the five largest Dentsply dealers accounting for 83 percent of Dentsply's total sales.¹⁰⁴ If the sales of competing lines at grandfathered dealers were not somehow limited by Dentsply, then Dentsply's exclusive dealing contracts could not have effectively foreclosed competitors from using the Dentsply dealer network. Unfortunately, exactly how Dentsply administered these grandfathered relationships was not established at trial.¹⁰⁵

If Dentsply's contracts with grandfathered dealers were administered so that rival manufacturer sales through these dealers were significantly restricted, then the fact that grandfathered dealers adequately promoted Dentsply products would not be inconsistent with an undivided dealer loyalty explanation for exclusive dealing. But it also could mean that the exclusive contracts had potential anticompetitive effects. This is because, as the court concluded, dealers were an economically important distribution channel for artificial teeth manufacturers, providing significant ben-

¹⁰³ *Dentsply*, 277 F. Supp. 2d at 447–48; *Dentsply*, 399 F.3d at 197. In fact, the largest Dentsply dealer, Zahn, was claimed to be the “most aggressive” dealer in the United States, according to Dentsply executives, despite its carrying competing brands. *Id.* at 448.

¹⁰⁴ *Dentsply*, 277 F. Supp. 2d at 448; *Dentsply*, 399 F.3d at 185.

¹⁰⁵ However, we do know that “Dentsply rebuffed attempts by those particular [grandfathered] distributors to expand their lines of competing products beyond the grandfathered ones.” *Dentsply*, 399 F.3d at 185.

efits to laboratories in the form of “one stop-shopping” for all their dental products.¹⁰⁶

Even if Dentsply's dealers were a key distribution channel, the fact that Dentsply dealers could terminate their exclusive relationship with Dentsply “at will” and switch to competing lines of artificial teeth would suggest the potential for significant manufacturer competition for dealer distribution. It therefore appears that rival teeth manufacturers could compete to be the brand carried by Dentsply dealers. However, the court concluded that, despite the short-term nature of Dentsply's distribution agreements, Dentsply's exclusive contracts essentially prevented competition for distribution through their dealers because “dealers have a strong economic incentive to continue carrying Dentsply's teeth.”¹⁰⁷ This was evidenced by the fact that no Dentsply dealer had dropped Dentsply products in favor of rival brands.¹⁰⁸ According to the court, one possible economic explanation is that Dentsply supplied products that no dealer could do without.¹⁰⁹ If some of Dentsply's products were essential, Dentsply's policy of forcing dealers to make an all-or-none decision with regard to selling Dentsply products by requiring exclusive dealing may have been a way to effectively control the “gateways” to the artificial teeth market.¹¹⁰

Given the appeals court's conclusion that a large share of distribution was foreclosed by Dentsply's exclusive dealing contracts, the absence of any procompetitive rationale for exclusivity led the court to condemn the contracts. However, as noted, a possible procompetitive rationale for Dentsply's exclusive dealing contracts was the role of exclusivity in increasing dealer promotion by creating undivided dealer loyalty. The court rejected a rationale for exclusive dealing based on the prevention of free-riding on manufacturer investments, emphasizing the lack of evidence of Dentsply promotional investments that dealers could use to sell rival brands or of any evidence of grandfathered dealers switching labs to rival brands.¹¹¹ However, these facts are not inconsistent with an undivided dealer loyalty rationale. As we have demonstrated, the use of exclusive dealing to encourage dealer promotion need not involve dealers tak-

¹⁰⁶ *Id.* at 192.

¹⁰⁷ *Id.* at 194. Therefore, the appeals court distinguished *Dentsply* from other short-duration exclusive contract cases, including *Ryko* and *Roland Machinery*. *Id.* at n.2.

¹⁰⁸ *Id.* at 185.

¹⁰⁹ *Id.* at 194–96.

¹¹⁰ *Id.* at 192–93: “Criterion 6 imposes an ‘all-or-nothing’ choice on the dealers. The fact that dealers have chosen not to drop Dentsply teeth in favor of a rival's brand demonstrates that they have acceded to heavy economic pressure.”

¹¹¹ *Dentsply*, 277 F. Supp. 2d at 442–46.

ing advantage of manufacturer promotional investments by switching sales to rival products. Rather than subsidizing dealer promotional efforts by providing dealers with investments, the manufacturer may be compensating dealers for supplying increased promotion, and exclusive dealing mitigates dealer free-riding solely by increasing dealer incentives to supply the promotion for which they have been paid.

In addition, the testimony by Dentsply executives that they would have increased Dentsply's promotional investments if exclusive dealing could not be used, which is cited by the court in dismissing Dentsply's free-riding rationale,¹¹² is also fully consistent with the use of exclusive dealing to create dealers with undivided loyalty that more actively promote Dentsply products. In fact, if the role of exclusive dealing was to encourage dealer promotion, and not to protect manufacturer investments against dealer switching of customers to alternative brands, we would expect Dentsply to increase its own promotion in response to the elimination of exclusive dealing. Since the elimination of exclusive dealing would reduce the incentive of Dentsply's dealers to promote Dentsply products, Dentsply therefore would have found it profitable to increase its own promotional investments as a substitute for reduced dealer promotion.

It is an open question whether Dentsply's substitution of its own promotion for dealer promotion would have involved replacing a more efficient form of dealer promotion with a less efficient form of manufacturer promotion. It is possible that Dentsply chose to purchase increased dealer promotion with an inefficient arrangement that included exclusive dealing because of the added economic benefits it received by foreclosing rivals from effective distribution. Although Dentsply's exclusive dealing contracts likely had the procompetitive benefit of inducing increased dealer promotion, this does not mean that Dentsply was not also motivated to adopt exclusive dealing because of the anticompetitive effects associated with it.¹¹³

Up to this point we have assumed that a manufacturer will internalize any costs associated with exclusive dealing, such as lost dealer sales to consumers who highly prefer alternative brands. Firms will trade off the costs and benefits associated with alternative distribution arrangements when choosing which distribution arrangement to adopt. However, the

¹¹² *Id.* at 445–46.

¹¹³ A former Dentsply manager testified that the purpose of Dentsply's exclusive dealing contracts was to "block competitive distribution points. Do not allow competition to achieve toeholds in dealers; tie up dealers; do not 'free-up' key players." *Dentsply*, 399 F.3d at 189.

conclusion that a firm will fully internalize all costs associated with its choice of distribution arrangement relies on the assumption that exclusive dealing has no anticompetitive effects. If one of the possible benefits to the manufacturer of adopting exclusive dealing is the anticompetitive costs imposed on rivals, then this factor also will enter the firm's calculus in deciding whether to use exclusive dealing.

The next logical step in the antitrust analysis, therefore, would be to determine if there is an alternative arrangement to exclusive dealing that achieves the benefit of increased promotion at lower cost. If there is such an alternative arrangement, it is likely that exclusive dealing has been adopted because of the added economic benefits received by the manufacturer in terms of its anticompetitive effects.¹¹⁴ However, this clearly does not apply to the alternative of manufacturer promotion. Efficient marketing arrangements frequently require a significant amount of dealer-provided promotion. Although a manufacturer may, for example, promote its products by advertising extensively, dealer promotional effort at the point of sale is usually an efficient way to complete the sale. In the *Dentsply* case, it seems extremely unlikely that increased dealer promotion on the margin would be less efficient than manufacturer promotion because of the important role of dealer promotional efforts.

Once it is established that there is no obvious more-efficient alternative to exclusive dealing, if significant anticompetitive effects of exclusive dealing are demonstrated, we are then faced with the inherently difficult task of balancing pro- and anticompetitive effects of exclusive dealing. Since the court did not even accept the possibility that *Dentsply's* exclusive dealing contracts could be legitimately justified as a way of efficiently inducing increased dealer promotion by creating undivided dealer loyalty, we do not know if a more complete analysis would have found the net effect of *Dentsply's* exclusive dealing to be procompetitive or anticompetitive. However, what is clear is that further analysis of the undivided dealer loyalty rationale for exclusive dealing should have been undertaken.

¹¹⁴ This is related to one variant of the "no economic sense" test, advocated by some as a necessary condition for anticompetitive exclusionary conduct. See, e.g., Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test*, 73 ANTITRUST L.J. 413 (2006). Our statement refers to this as a sufficient, not a necessary, condition for anticompetitive exclusionary conduct.

VI. CONCLUSION

The economic framework presented in this article significantly expands what one should look for in determining whether an exclusive dealing contract serves the legitimate procompetitive purpose of preventing dealer free-riding and creating dedicated dealers with undivided loyalty. The court's rejection of these rationales for exclusive dealing in *Dentsply* is an example of the fundamental error of attempting to fit the facts of a case into a preconceived economic model rather than developing an appropriate economic model that best explains the facts of a case. Once we use an economic model that recognizes dealers have an incentive to take advantage of the arrangements by which manufacturers compensate dealers for increased promotion, the required conditions for exclusive dealing to prevent dealer free-riding that are emphasized in current antitrust law and focused on by the court in *Dentsply*, namely the presence of free-rideable manufacturer investments that a dealer uses to switch consumers to alternative brands, must be modified.

What is required for the procompetitive use of exclusive dealing to prevent dealer free-riding in the expanded economic model of free-riding we have presented is that (1) dealers have a significant economic role in the promotion of the manufacturer's product, (2) the manufacturer compensates dealers for supplying increased promotion of its products, and (3) exclusive dealing facilitates manufacturer self-enforcement of this arrangement, so that dealers are more likely to supply the increased brand-specific promotion the manufacturer expects to receive in return for its compensation. Exclusive dealing may be efficient in these circumstances because it prevents dealers from using their promotional efforts that have been paid for by the manufacturer to sell more-profitable alternative brands and because it increases the independent economic incentive of dedicated dealers to provide the promotional efforts paid for by the manufacturer.

Recognizing that exclusive dealing serves these procompetitive purposes may make antitrust analysis of exclusive dealing contracts in some cases more difficult. The relatively "easy" exclusive dealing cases where nothing is placed on the procompetitive justification side of the scale, as *Dentsply* has been claimed to be, will be much rarer. Therefore, even when one demonstrates a likely anticompetitive effect from an exclusive dealing contract, balancing of pro- and anticompetitive effects may be necessary in many more cases.

