



**Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity: Comment**

Leslie M. Marx; Greg Shaffer

*The American Economic Review*, Vol. 94, No. 3. (Jun., 2004), pp. 796-801.

Stable URL:

<http://links.jstor.org/sici?sici=0002-8282%28200406%2994%3A3%3C796%3AOIMVCN%3E2.0.CO%3B2-Z>

*The American Economic Review* is currently published by American Economic Association.

---

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/aea.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

---

JSTOR is an independent not-for-profit organization dedicated to and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

# Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity: Comment

By LESLIE M. MARX AND GREG SHAFFER\*

Nondiscrimination clauses, also known as most-favored-customer clauses, make a seller's best terms available to all buyers. These clauses, which are frequently found in both final-goods and intermediate-goods markets, allegedly provide the seller with a commitment device not to lower price to future buyers. Well-known examples in the literature are Thomas E. Cooper (1986) and David A. Butz (1990).<sup>1</sup> Cooper (1986) shows that nondiscrimination clauses can dampen competition over time by inducing less aggressive pricing on the part of a firm's rivals. Butz (1990) shows that nondiscrimination clauses can solve the well-known time inconsistency problem with durable goods. In both models, nondiscrimination clauses commit the seller to its initial price; if the seller were to offer better terms to a later buyer, all previous buyers would request the same treatment, and the seller's attempt to lower price selectively would be defeated.

However, the notion that previous buyers would automatically request the same treatment if a later buyer were to receive better terms (e.g., a lower average price) has been challenged by R. Preston McAfee and Marius Schwartz (1994) in the case of intermediate-goods markets. They show that nondiscrimination clauses may be ineffective in committing a seller to its initial sales contract when the buyers' payoffs are interdependent and contracts have multiple terms. Although the buyers in these markets would all prefer to have the favored buyer's lower marginal price, each might

prefer to operate under its own sales contract rather than accept the rest of the favored buyer's terms.

This insight has potentially far-reaching implications for theory and public policy because it is well known that when an upstream seller can make take-it-or-leave-it offers to multiple downstream buyers in sequence, the upstream firm may have an incentive to engage in opportunistic behavior by offering one set of contract terms to the first downstream firm, waiting for the firm to incur sunk costs, and then offering another set of contract terms with a lower wholesale price to a rival downstream firm. Although one might think that the upstream firm can guard against this kind of opportunism by offering nondiscrimination clauses to its buyers, McAfee and Schwartz's insight appears to suggest otherwise. They conclude (1994, p. 222),

We began by illustrating the opportunism problem in a game with sequential contracting. We then modified that game to incorporate nondiscrimination (most-favored-customer) clauses, and we showed that they do not generally restore the commitment solution, even in symmetric environments. This inability of nondiscrimination clauses to curb opportunism in multilateral vertical contracting is our most novel result.

We show in this comment that McAfee and Schwartz made a mistake in solving their sequential contracting game. McAfee and Schwartz proved that: even if the upstream seller offers a nondiscrimination clause, there cannot be an equilibrium in which the efficient contract (i.e., the contract that maximizes overall joint profit) is offered to each firm and nondiscrimination clauses are *not* invoked. They interpret this as implying that nondiscrimination clauses do not prevent opportunism. However, they did not consider whether equilibria exist in

\* Marx: Fuqua School of Business, Duke University, Durham, NC 27708 (e-mail: marx@duke.edu); Shaffer: Simon School of Business, University of Rochester, Rochester, NY 14627 (e-mail: shaffer@simon.rochester.edu). We thank the National Science Foundation (Grant SES-0001903) for financial support and two anonymous referees for helpful comments.

<sup>1</sup> See also Steven Salop (1986), William S. Neilson and Harold Winter (1992, 1993), and Monica Schnitzer (1994).

which overall joint profit is maximized and non-discrimination clauses *are* invoked. Our contribution is to show that this indeed occurs in equilibrium: given two downstream firms, the first downstream firm is offered an inefficient contract, but then (along the equilibrium path) invokes its nondiscrimination clause to obtain the efficient contract offered to its rival.<sup>2</sup>

Our results offer a new perspective on the role of nondiscrimination clauses in intermediate-goods markets. Unlike previous literature, which focuses on final-goods markets and suggest that nondiscrimination clauses may work by committing a seller to its *initial* sales contract, our findings suggest that nondiscrimination clauses may work by enabling a seller to commit to its *final* sales contract. The seller chooses the terms of its initial set of contracts so that when the last contract is offered, buyers that already have contracts will want to invoke their nondiscrimination clauses.

Section I describes the model and discusses the seller's opportunism problem. Section II incorporates nondiscrimination clauses, solves the sequential contracting game, and shows that the commitment solution is obtained. Section III concludes.

### I. Model and Opportunism Problem

Suppose an upstream monopolist sells an input to two potential downstream firms that in turn use the input to produce substitute products. The monopolist offers its supply terms on a take-it-or-leave-it basis. Denote the monopolist's offer to firm  $i$  as the pair  $(r_i, f_i)$ , where  $r_i$  is the wholesale price of the input and  $f_i$  is the fixed fee. The monopolist produces at constant marginal cost  $z \geq 0$  and has no fixed cost.

The monopolist makes an offer to firm 1. Firm 1 either accepts or rejects its offer. The monopolist then makes an offer to firm 2. Firm 2 either accepts or rejects its offer. We assume firm 2 observes firm 1's offer and decision

<sup>2</sup> Extensions in an earlier version of this paper, Marx and Shaffer (2001), provide for initial contracts with nondiscrimination clauses that implement efficient outcomes over time (so that any interim production decisions are optimal) and that allow for simultaneous offers.

before making its own decision. If a firm rejects its offer, the firm exits the market and earns zero. If a firm accepts its offer, the firm commits to paying its fixed fee regardless of the product market outcome.<sup>3</sup> After both firms make their accept-or-reject decisions, all offers and decisions are observed. Firms that have accepted offers order inputs and participate in the product market under the terms of their accepted contracts.

We assume the product market equilibrium is unique for any  $(r_1, r_2)$  in which both firms are active, with firm  $i$ 's equilibrium flow payoff given by  $\pi_i(r_1, r_2)$ . For  $r_i$  sufficiently large, firm  $i$ 's flow payoff is zero. Otherwise, if both firms are active, we assume  $\pi_i$  is decreasing in  $r_i$  and increasing in  $r_j$  for  $i \neq j$ , so that a firm's flow payoff is decreasing in its own wholesale price and increasing in the wholesale price of its competitor. We also assume that the cross-partial derivative of  $\pi_i$  is negative,

$$(1) \quad \frac{\partial^2 \pi_i(r_1, r_2)}{\partial r_1 \partial r_2} < 0,$$

which implies that firm  $i$ 's flow payoff is less sensitive to a decrease in its own wholesale price (does not increase as much) the lower is the wholesale price of its competitor.<sup>4</sup>

Let  $q_i(r_1, r_2)$  be firm  $i$ 's equilibrium input demand as a function of the wholesale prices. Then the monopolist's flow payoff is  $\sum_{i=1}^n (r_i - z)q_i(r_1, r_2)$  and, if both firms are active, the overall joint payoff of the monopolist and downstream firms is

<sup>3</sup> We follow McAfee and Schwartz in assuming that a firm cannot back out of its contract if it subsequently suspects opportunism. Thus, we assume the fixed fee is sunk. Another way of modeling the seller's opportunism problem is to assume that the firms incur noncontractible, relationship-specific investments that are sunk at the time of contracting. As we showed in an earlier version of this paper, Marx and Shaffer (2001), our qualitative results are the same in both cases.

<sup>4</sup> Intuitively, a firm benefits from a decrease in its own wholesale price in proportion to how much it produces. In many standard models of competition, the lower a competitor's wholesale price, the lower is a firm's output, and therefore the lower is a firm's gain from a decrease in its wholesale price.

$$\Pi(r_1, r_2) \equiv \sum_{i=1}^2 (r_i - z)q_i(r_1, r_2) + \sum_{i=1}^2 \pi_i(r_1, r_2).$$

Let  $u_i(r_1, r_2)$  be the joint payoff of the monopolist and firm  $i$  ignoring  $f_j$ ,

$$u_i(r_1, r_2) \equiv \sum_{j=1}^2 (r_j - z)q_j(r_1, r_2) + \pi_i(r_1, r_2) = \Pi(r_1, r_2) - \pi_j(r_1, r_2).$$

Then it follows that  $\frac{\partial u_i(r_1, r_2)}{\partial r_i} < \frac{\partial \Pi(r_1, r_2)}{\partial r_i}$  for all  $r_1, r_2$  such that both firms are active.

We assume that  $\Pi(r_1, r_2)$  and  $u_i(r_1, r_2)$  are twice differentiable, concave in  $r_i$ , and have the property that own-price effects dominate cross-price effects, i.e.,  $\left| \frac{\partial^2 \Pi}{\partial r_i^2} \right| > \left| \frac{\partial^2 \Pi}{\partial r_i \partial r_j} \right|$  and  $\left| \frac{\partial^2 u_i}{\partial r_i^2} \right| > \left| \frac{\partial^2 u_i}{\partial r_i \partial r_j} \right|$ . We also assume that the firms' flow payoffs are symmetric, i.e., given  $(r'_1, r'_2)$  and  $(r''_1, r''_2)$ , where  $r''_1 = r'_2$  and  $r''_2 = r'_1$ , then  $\pi_i(r'_1, r'_2) = \pi_j(r''_1, r''_2)$ .

A. The Seller's Opportunism Problem

Let  $r^* \equiv \arg \max_{r \geq 0} \Pi(r, r)$ , so  $\Pi(r^*, r^*)$  is the maximum overall joint payoff. If the monopolist could commit to a single contract, it would offer each firm the efficient contract  $(r^*, f^*)$ , where  $f^* \equiv \pi(r^*, r^*)$ .<sup>5</sup> Each firm would accept its offer and the monopolist would earn  $\Pi(r^*, r^*)$ . McAfee and Schwartz call this the commitment solution. However, if the monopolist cannot commit to a single contract, then firm 1 will be wary of accepting its offer because it stands to lose in the event of opportun-

ism. The problem is that firm 1 must agree to its contract terms before knowing firm 2's offer. This creates an incentive for seller opportunism. In the absence of a commitment not to act opportunistically against firm 1, the monopolist's incentive is to choose  $(r_2, f_2)$  so as to shift flow profit away from firm 1 and towards firm 2.

To see this, let  $\hat{r}_2(r_1; f_1)$  be a wholesale price that maximizes the bilateral joint payoff of the monopolist and firm 2 given firm 1's wholesale price and fixed fee, i.e.,

$$(2) \quad \hat{r}_2(r_1; f_1) \in \arg \max_{r \geq 0} u_2(r_1, r) + f_1.$$

It follows from our assumptions on  $u_2(r_1, r)$  that  $\hat{r}_2(r^*; f^*) < r^*$ , implying that the monopolist and firm 2 gain by lowering firm 2's wholesale price below  $r^*$ . The monopolist captures this gain by charging firm 2 a higher fixed fee:  $\hat{f}_2 \equiv \pi_2(r^*, \hat{r}_2(r^*; f^*)) > f^*$ .

This implies that it cannot be an equilibrium for the monopolist to offer the contract  $(r^*, f^*)$  to both downstream firms, because it can earn higher payoff by lowering firm 2's wholesale price (to shift rents) and raising its fixed fee. Ultimately, however, the monopolist loses because, in equilibrium, firm 1 will anticipate the monopolist's incentive for opportunism and adjust its accept or reject decision accordingly.<sup>6</sup>

<sup>6</sup> The monopolist's predicament arises because of its inability to commit not to discriminate against its own downstream firms. Achieving commitment in practice is difficult because the opportunism can take many forms. In addition to discrimination on wholesale prices and fixed fees, the opportunism can take the form of differences in delivery terms, advertising subsidies, credit terms, cases of free goods, etc. For example, a seller may offer incentives to its downstream firms in the form of advertising promotions or other demand-enhancing programs. To the extent that the seller can discriminate in its offerings, the effect on each downstream firm's pricing behavior will vary, and thus the seller's ability to be opportunistic may be present even if it does not literally discount the wholesale price. All that is required is that there be some variable component that causes the firms' flow payoffs to move in opposite directions. Although the problem could be solved if the monopolist could commit to these various terms in all contracts at the outset, this would require complete state-contingent contracts, something that typically is not possible in actual contracts.

<sup>5</sup> Symmetry allows us to drop the subscript on  $\pi$  when all firms have a common wholesale price. Our assumptions imply that  $\Pi(r, r)$  is concave and thus  $\arg \max_{r \geq 0} \Pi(r, r)$  is unique.

## II. Nondiscrimination Game

One might think the monopolist can guard against opportunism by offering firm 1 a nondiscrimination clause that allows it to replace its initially accepted contract with any other contract offered to and accepted by firm 2 prior to competing in the product market. The implicit assumption is that firm 1 would be willing to accept the terms  $(r^*, f^*)$  and a nondiscrimination clause because if its rival were to receive better terms, it could invoke its nondiscrimination clause and be no worse off.

However, McAfee and Schwartz (1994) show that nondiscrimination clauses do not necessarily prevent opportunism in this case. To understand where the above reasoning goes wrong, suppose firm 1 accepts the terms  $(r^*, f^*)$  and a nondiscrimination clause, and the monopolist offers to firm 2 the same opportunistic wholesale price and fixed fee as before,  $(\hat{r}_2(r^*; f^*), \hat{f}_2)$ . Recall that  $\hat{r}_2(r^*; f^*) < r^*$  and  $\hat{f}_2 > f^*$ . In this case, if firm 1 does not invoke its nondiscrimination clause, its payoff is

$$(3) \quad \pi_1(r^*, \hat{r}_2(r^*; f^*)) - \pi_1(r^*, r^*) < 0,$$

and if firm 1 does invoke its nondiscrimination clause, its payoff is

$$(4) \quad \pi_1(\hat{r}_2(r^*; f^*), \hat{r}_2(r^*; f^*)) \\ - \pi_1(\hat{r}_2(r^*; f^*), r^*) < 0,$$

where  $\pi_1(\hat{r}_2(r^*; f^*), r^*) = \pi_2(r^*, \hat{r}_2(r^*; f^*))$  by symmetry. Although firm 1's payoff is negative in both cases, firm 1 will not invoke its nondiscrimination clause because its payoff in (4) is strictly lower. Intuitively, firm 1 will not invoke its nondiscrimination clause to obtain firm 2's lower wholesale price because it would have to pay firm 2's higher fixed fee, which more than offsets the gain from a lower wholesale price. Since the cross-partial derivative of  $\pi_1$  is negative, a given reduction in marginal cost ( $r^* - \hat{r}_2(r^*; f^*)$ ) is worth less to firm 1 once firm 2 has accepted  $\hat{r}_2(r^*; f^*)$  than it is to firm 2 if firm 1 retains wholesale price  $r^*$ . Thus, if  $\hat{f}_2 - f^*$  fully extracts firm 2's gain from the deviation to  $\hat{r}_2(r^*; f^*)$ , then firm 1 prefers to retain contract  $(r^*, f^*)$ .

The conditions in (3) and (4) imply that firm 1 will reject any contract in which it is offered  $(r^*, f^*)$  and a nondiscrimination clause. It would thus appear that the commitment solution in which both firms operate under  $(r^*, f^*)$  cannot be obtained, and indeed McAfee and Schwartz conclude from all this that nondiscrimination clauses will generally be ineffective in curbing opportunism. Unfortunately, their reasoning turns out to be incorrect in the game they consider. The flaw in the logic is in not recognizing that equilibria may exist in which nondiscrimination clauses are invoked.

We now show that the joint-payoff maximizing outcome can be obtained in every subgame-perfect equilibrium, and thus that nondiscrimination clauses do indeed solve the seller's opportunism problem in the game of sequential contracting.

Let  $W_1 \equiv \{(r_1, f_1) | r_1 \geq 0, f_1 = \pi_1(r_1, \infty)\}$  be the set of wholesale prices and fixed fees for firm 1 such that firm 1 just breaks even if it were a monopolist in the downstream market, and consider whether there is an equilibrium in which the monopolist offers  $(r'_1, f'_1) \in W_1$  and a nondiscrimination clause to firm 1, and then offers contract  $(r^*, f^*)$  to firm 2.

Given these contracts, we begin by showing that if firm 2 accepts  $(r^*, f^*)$ , then firm 1 will invoke its nondiscrimination clause and switch to this contract. The reason is straightforward: by construction of  $(r'_1, f'_1)$ , firm 1's profit is negative once it faces competition from firm 2; whereas  $(r^*, f^*)$  yields zero net profit to both firms. More formally, note that firm 1's payoff if it does not invoke its nondiscrimination clause is  $\pi_1(r'_1, r^*) - f'_1$ , and its payoff if it does invoke its nondiscrimination clause is zero. Since  $f'_1 > \pi_1(r'_1, r^*)$ , firm 1 invokes its nondiscrimination clause. Thus, firm 1 is willing to accept the terms  $(r'_1, f'_1)$  and a nondiscrimination clause, provided it is optimal for the monopolist to offer  $(r^*, f^*)$  to firm 2. Note also that this same logic implies that firm 2 accepts  $(r^*, f^*)$  if offered, even if  $r'$  is quite low, because it can count on firm 1's switching to  $(r^*, f^*)$ .

We now show that there exist combinations  $(r'_1, f'_1) \in W_1$  for which the monopolist prefers to offer  $(r^*, f^*)$  to firm 2—and therefore also to firm 1 via the nondiscrimination clause—than by offering firm 2 any opportunistic contract

$(r_2, f_2)$  that would cause firm 1 to retain its contract  $(r'_1, f'_1)$ . That is, we show that the monopolist does not want to offer a contract to firm 2 such that firm 1 does not invoke its nondiscrimination clause. Suppose it did. Then the monopolist maximizes its payoff by choosing  $(r_2, f_2)$  such that  $f_2$  extracts firm 2's surplus, i.e.,  $f_2 = \pi_2(r'_1, r_2)$ , and  $r_2$  solves

$$(5) \quad \max_{r_2 \geq 0} u_2(r'_1, r_2) + f'_1,$$

subject to the constraint that firm 1 does not invoke its nondiscrimination clause,

$$(6) \quad \pi_1(r'_1, r_2) - f'_1 \geq \pi_1(r_2, r_2) - f_2.$$

If there is no interior solution to the program in (5)–(6), then the monopolist maximizes its payoff subject to firm 1's not invoking its nondiscrimination clause by not selling to firm 2. In this case, the monopolist has higher payoff with contract  $(r^*, f^*)$ . If an interior solution  $r'_2$  exists, then the maximum payoff of the monopolist is

$$u_2(r'_1, r'_2) + f'_1 = \Pi(r'_1, r'_2) - \pi_1(r'_1, r'_2) + f'_1.$$

This payoff represents the best the monopolist can do if it attempts to act opportunistically against firm 1. In contrast, the maximum payoff of the monopolist if it does not act opportunistically but instead offers  $(r^*, f^*)$  to firm 2 is

$$u_2(r^*, r^*) + f^* = \Pi(r^*, r^*).$$

Of these two payoffs, the latter payoff is greater if and only if

$$(7) \quad \Pi(r^*, r^*) - \Pi(r'_1, r'_2) > f'_1 - \pi_1(r'_1, r'_2),$$

that is, if and only if the gain in overall joint payoff if the monopolist does not act opportunistically against firm 1 is greater than the maximum rent it can shift from firm 1 if it does act opportunistically. Because there exists  $(r_1, f_1) \in W_1$  such that (7) is satisfied, e.g.,  $r_1$  sufficiently high that  $f'_1 = \pi_1(r'_1, \infty)$  is close to zero, it follows that overall joint payoff is maximized in every subgame-perfect equilibrium.

**PROPOSITION 1:** *When nondiscrimination clauses are feasible, the seller obtains the joint-payoff-maximizing outcome in every subgame-perfect equilibrium.*

**PROOF:**

The proof that there exists an equilibrium in which overall joint payoff is maximized and the monopolist has payoff  $\Pi(r^*, r^*)$  is contained in the text. To see that overall joint payoff is maximized in every subgame-perfect equilibrium outcome, suppose that a different outcome can be achieved. If the monopolist has payoff greater than  $\Pi(r^*, r^*)$ , then at least one firm has negative payoff and can profitably deviate by rejecting its contract, a contradiction. If the monopolist has payoff  $m < \Pi(r^*, r^*)$ , then the monopolist can profitably deviate by offering contract  $(r_1, f_1) = (\infty, -\varepsilon/2)$  with a nondiscrimination clause to firm 1 and contract  $(r_2, f_2) = (r^*, f^* - \varepsilon/2)$  to firm 2, where  $\varepsilon \in (0, \Pi(r^*, r^*) - m)$ . Both firms have a strict incentive to participate, and firm 1 has a strict incentive to invoke its nondiscrimination clause. The monopolist's payoff is  $\Pi(r^*, r^*) - \varepsilon > m$ , a contradiction.

Instead of offering firm 1 the terms  $(r^*, f^*)$  and a nondiscrimination clause, the monopolist obtains the joint-payoff-maximizing outcome by offering firm 1 the terms  $(r'_1, f'_1)$  and a nondiscrimination clause, where  $(r'_1, f'_1)$  are such that firm 1 invokes its nondiscrimination clause along the equilibrium path. Then, when the monopolist offers a contract to firm 2, it chooses  $(r^*, f^*)$  and maximizes overall joint payoff because it knows that it is effectively offering this same contract to both firms.

The intuition for Proposition 1 has two parts. First, the role of the initial contract offer to firm 1 is to eliminate the monopolist's incentive to engage in opportunism by offering firm 2 a discriminatory discount that does not cause firm 1 to invoke its nondiscrimination clause. For example, a contract offer with  $r_1$  sufficiently high eliminates the monopolist's incentive to engage in opportunism because then there is little or no rent to shift away from firm 1. A high wholesale price ensures that firm 1's flow payoff is small, and a fixed fee close to zero ensures that firm 1 incurs little sunk cost. This implies

that any deviation from the terms  $(r^*, f^*)$  to firm 2 such that firm 1 does not invoke its nondiscrimination clause results in a discrete loss in overall joint payoff with little or no compensating gain. Second, the role of the nondiscrimination clause is to eliminate the loss to the monopolist of offering terms to firm 1 that are suboptimal when both firms are operating in the market because the monopolist knows that firm 1 will switch to firm 2's contract.

This result suggests a new role for nondiscrimination clauses. Previously, nondiscrimination clauses have been thought of as providing the commitment that prevents a seller from engaging in opportunism. However, our result suggests that it is the terms  $(r_1, f_1)$  of the contract offer to firm 1 that provide this commitment, and that nondiscrimination clauses make this feasible because they allow the first buyer to operate under the second buyer's terms. In other words, nondiscrimination clauses work because they allow a seller to commit to its final rather than initial sales contract.

### III. Conclusion

McAfee and Schwartz (1994) show in their game of sequential contracting that there is no equilibrium in which the efficient contract is offered to firm 1 and nondiscrimination clauses are not invoked. They interpret this result to mean that nondiscrimination clauses are ineffective in curbing the seller's opportunism. In contrast, we show that there are equilibria in which an inefficient contract is offered to firm 1, the efficient contract is offered to firm 2, and firm 1 switches to this contract. The intuition is that if firm 1's initial wholesale price is high enough, then the potential gains from opportunism are small because firm 1's initial divertable profit is small, so the monopolist is better off maximizing overall joint profit (by inducing

both firms to operate under the efficient contract). Thus, we find that nondiscrimination clauses *are* effective in curbing opportunism in the game considered by McAfee and Schwartz, and that overall joint payoff is maximized in every subgame-perfect equilibrium.

### REFERENCES

- Butz, David A.** "Durable-Good Monopoly and Best-Price Provisions." *American Economic Review*, December 1990, 80(5), pp. 1062–76.
- Cooper, Thomas E.** "Most-Favored-Customer Pricing and Tacit Collusion." *RAND Journal of Economics*, Autumn 1986, 17(3), pp. 377–88.
- Marx, Leslie M. and Shaffer, Greg.** "Opportunism and Nondiscrimination Clauses." Working paper, University of Rochester, 2001.
- McAfee, R. Preston and Schwartz, Marius.** "Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity." *American Economic Review*, March 1994, 84(1), pp. 210–30.
- Neilson, William S. and Winter, Harold.** "Unilateral Most-Favored-Customer Pricing: A Comparison with Stackelberg." *Economics Letters*, February 1992, 38(2), pp. 229–32.
- \_\_\_\_\_. "Bilateral Most-Favored-Customer Pricing and Collusion." *RAND Journal of Economics*, Spring 1993, 24(1), pp. 147–55.
- Salop, Steven.** "Practices That (Credibly) Facilitate Oligopoly Coordination," in Joseph E. Stiglitz and G. Frank Mathewson, eds., *New developments in the analysis of market structure*. Cambridge, MA: MIT Press, 1986, pp. 265–90.
- Schnitzer, Monika.** "Dynamic Duopoly with Best-Price Clauses." *RAND Journal of Economics*, Spring 1994, 25(1), pp. 186–96.

## LINKED CITATIONS

- Page 1 of 2 -



You have printed the following article:

### **Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity: Comment**

Leslie M. Marx; Greg Shaffer

*The American Economic Review*, Vol. 94, No. 3. (Jun., 2004), pp. 796-801.

Stable URL:

<http://links.jstor.org/sici?sici=0002-8282%28200406%2994%3A3%3C796%3AOIMVCN%3E2.0.CO%3B2-Z>

---

*This article references the following linked citations. If you are trying to access articles from an off-campus location, you may be required to first logon via your library web site to access JSTOR. Please visit your library's website or contact a librarian to learn about options for remote access to JSTOR.*

## References

### **Durable-Good Monopoly and Best-Price Provisions**

David A. Butz

*The American Economic Review*, Vol. 80, No. 5. (Dec., 1990), pp. 1062-1076.

Stable URL:

<http://links.jstor.org/sici?sici=0002-8282%28199012%2980%3A5%3C1062%3ADMABP%3E2.0.CO%3B2-2>

### **Most-Favored-Customer Pricing and Tacit Collusion**

Thomas E. Cooper

*The RAND Journal of Economics*, Vol. 17, No. 3. (Autumn, 1986), pp. 377-388.

Stable URL:

<http://links.jstor.org/sici?sici=0741-6261%28198623%2917%3A3%3C377%3AMPATC%3E2.0.CO%3B2-C>

### **Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity**

R. Preston McAfee; Marius Schwartz

*The American Economic Review*, Vol. 84, No. 1. (Mar., 1994), pp. 210-230.

Stable URL:

<http://links.jstor.org/sici?sici=0002-8282%28199403%2984%3A1%3C210%3AOIMVCN%3E2.0.CO%3B2-C>



## LINKED CITATIONS

- Page 2 of 2 -



### **Bilateral Most-Favored-Customer Pricing and Collusion**

William S. Neilson; Harold Winter

*The RAND Journal of Economics*, Vol. 24, No. 1. (Spring, 1993), pp. 147-155.

Stable URL:

<http://links.jstor.org/sici?sici=0741-6261%28199321%2924%3A1%3C147%3ABMPAC%3E2.0.CO%3B2-A>

### **Dynamic Duopoly with Best-Price Clauses**

Monika Schnitzer

*The RAND Journal of Economics*, Vol. 25, No. 1. (Spring, 1994), pp. 186-196.

Stable URL:

<http://links.jstor.org/sici?sici=0741-6261%28199421%2925%3A1%3C186%3ADDWBC%3E2.0.CO%3B2-N>