

Contracts that Reference Rivals

BY FIONA M. SCOTT MORTON

IN THE LEGAL AND ECONOMIC ANTITRUST literature, the analysis of horizontal agreements among firms is longer established and typically raises fewer complexities than analysis of vertical agreements. For instance, naked agreements to limit price competition among horizontal competitors generally have clear anticompetitive effects and are illegal in many jurisdictions, including the United States. The consensus among scholars and policy makers over many years is that any efficiency-enhancing aspects of such a naked horizontal agreement are almost always swamped by anticompetitive effects.¹

In contrast, the competitive issues and net effects of vertical contracts are often more difficult to sort out. Economic theory and practical experience show that vertical arrangements among firms may facilitate the creation of new products, higher-quality services, or lower-cost delivery channels. On the other hand, those same tools demonstrate that vertical contracts may, under certain conditions, exclude otherwise efficient competitors from the marketplace or raise rivals' costs.² Under such circumstances, the vertical arrangement could lead to higher prices and reduced output, harming consumers. In the face of this variety of potential outcomes, policy makers have not generally made blanket policy or law concerning the legality of vertical contracting. Instead, each case or situation is evaluated on its own merits. This "rule of reason" approach is, from an economist's point of view, a good thing, given the possibility of diverse effects arising from vertical agreements in different market contexts.

This being said, legal practitioners advising their clients on vertical agreements, and the managers of the firms themselves, may find this fact-specific individualized analysis to be unhelpful. Many decision makers presumably would prefer, when contemplating a vertical contract, to understand whether such a potential arrangement carries significant

antitrust risk. Understanding the impacts of different types of vertical contracts can, however, go some way towards illuminating the different antitrust risks presented.

The antitrust risks may be greater for some classes of vertical contracts than others. I will focus on what I call *contracts that reference rivals*, or CRRs. These are contracts containing material terms that are contingent not only on the prices or quantities transacted between the parties to the contract, but also on the prices, quantities, or other terms of the relationship between one of the parties and product market rivals of the other.

Over the years, a number of enforcement actions taken by the Antitrust Division of the Department of Justice have involved contracts that reference other transactions in the marketplace. Likewise, economists have studied many types of CRRs. This article provides a brief survey of past and current CRR cases, as well as the findings in the economic literature. The economic literature analyzes many circumstances where CRRs have the potential to harm consumers and competition, particularly—but not always—when they involve firms with market power. The literature also has identified efficiencies from many forms of CRRs. CRRs have thus been, and very likely will continue to be, the subject of antitrust scrutiny, both by the government and in private litigation.³

Identifying CRRs

A quick test for assessing whether a contract is a CRR is to ask whether the terms of the transaction between a buyer and seller depend on information from a different buyer-seller relationship involving at least one of the same parties. Similarly, one could ask whether, in order for the final price or terms in the contract to be determined, the buyer or seller must be able to observe, to at least some extent, the terms or outcomes of exchange between it and rivals to the other party. If so, the agreement is a CRR.

Consider a contract between firms for the purchase of an input to production. Some contracts lay out a price per unit that the buyer must pay; others describe a quantity schedule open to all buyers, with one per-unit price for purchase of a limited number of units and another, typically lower, per-unit price for purchases of large numbers of units (an ordinary quantity discount). I will call these "standard" contracts, and they are the benchmarks to which I will compare CRRs. By contrast, a CRR is a contract between a buyer and a seller that refers to, and whose terms may depend on, information outside this "standard" buyer-seller contractual relationship. This outside information comes from other transactions to which those same firms are (or may potentially be) party. Those references may be either explicit or implicit, and they can involve a host of factors, including price terms, non-price terms, terms pertaining to the buyer's rivals, or terms pertaining to the seller's rivals.

For instance, exclusive dealing transactions depend on whether there have been any purchases from rival sellers.⁴

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Most-favored-nation provisions (MFNs) typically result in the covered buyer knowing its rivals' prices (or other provisions of the contract) are no higher than its own. Meet-or-release provisions (MORs) allow a seller to learn about rivals' offers to the buyer—typically at the end of a contract period. MORs give the incumbent seller the right to learn of the new seller's price, and to match it in order to keep the business. Market share discount, or “loyalty rebates” are another CRR: the buyer will receive a discount on all purchased units if it buys some threshold (e.g., 90 percent) or more of its needs from the seller offering the contract. Note that the price the buyer pays on its purchases from one seller becomes linked to its purchases from rival sellers.

Other CRRs exist, and businesses invent new forms on an ongoing basis.

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Competitive Effects of CRRs

The competitive effects of a particular CRR depend on the specific provisions of the CRR and the market circumstances. Not all CRRs cause competitive harm. For instance, observing that a buyer has bought exclusively from one seller does not necessarily lead to the conclusion that the arrangement caused any harm. Sellers may, for example, compete by bidding for exclusives on the basis of one or more terms (such as price, quality, service offerings, or timeliness). Under such circumstances, multiple sellers may be offered the option of bidding for all of the buyer's business, and the buyer may, as a consequence, find it possible to extract all the surplus from the transaction by exclusively buying from one seller. The classic economic models predict no harm in these circumstances.⁵ Nonetheless, such bidding-for-exclusives is a CRR because conditioning a seller's ability to win the business on offering to supply all of the customers' needs necessarily implies that the buyer is willing to agree with the seller, albeit implicitly, that it will not purchase from the seller's rivals.

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antitrust enforcement authorities recognize that CRRs can produce competitive harm when numerous similar firms, none of which is dominant, employ a CRR.⁷ As explained in the following sections, for instance, it has been shown that MFNs, which oblige a seller to charge a price to the customer that is party to the MFN agreement that is no higher than the lowest price it offers to *any* of its customers, increase the symmetry of various sellers' market positions. This may dampen competition and lead to higher prices, reduced innovation, or reduced potential for market entry. In those circumstances, CRRs may generate competitive harm even in the absence of a dominant firm.

The economic literature also distinguishes between CRRs that cause anticompetitive consequences by “exclusion” versus “collusion.” CRRs that cause harm by exclusion make it more difficult for an otherwise efficient or differentiated entrant to enter the market and create competition benefiting consumers. CRRs that cause harm by collusion soften price competition and lead to higher equilibrium prices. While the potential for higher equilibrium prices under “collusion” typically can be illustrated using static economic models of competitive interaction, dynamic models are required in order to demonstrate the potential for “exclusion” of the sort described above. Such dynamic models can take into account a variety of factors, including the possibility that the entrant might vary its scale or other key characteristics in response to the CRR.

Exclusive Dealing and Market-Share Discounts

Exclusive dealing and market-share discounts are two categories of CRRs that have been studied extensively using dynamic economic models.⁸ Moreover, both have been the subject of investigation and litigation at the Department of Justice and Federal Trade Commission.⁹

Michael Whinston provides a clear exposition of the competitive effects of exclusive dealing.¹⁰ In his paper, which considers both static and dynamic contexts, he shows that exclusive dealing can have either procompetitive or anti-competitive effects. When all consumers value the incumbent monopolist's product equally and there are no scale economies, then exclusive dealing contracts do not enable the monopolist to raise prices or keep the rival out of the market in the second period. The exclusive dealing contract does not harm consumers in this setting. By contrast, if scale economies are present, then when the monopolist captures consumers for the second period, that action raises the average cost of any potential entrant, and then there is a chance the monopolist may exclude a rival. In that case, in the first period the monopolist may find it profitable to give first-period buyers a financial incentive to purchase its product exclusively in the second period.

Another paper that demonstrates how a market share requirement may generate competitive harm is by Dennis Carlton, Patrick Greenlee, and Michael Waldman.¹¹ They consider the situation where a dominant firm produces and

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sells a full product line. There is also an entrant that enters with one differentiated or novel product but cannot supply all products at entry. As is common in the literature, the growth and expansion of the entrant into the other products in the product line is modeled as taking time. This is because, even with significant effort and investment, a firm entering with a novel product typically cannot instantaneously produce a complete product line. Rather, it must build manufacturing facilities, conduct R&D, create a distribution channel, achieve scale, develop a reputation, or engage in any number of other activities required to launch the additional products.

The incumbent can prevent that growth, and therefore prevent full entry and full competition with its product line, with a market share discount. By conditioning its discount on the customer purchasing no more than a small share of purchases from the rival, the incumbent limits its rival's growth. Customers must buy part of the product line from the incumbent, and the loss of the discount on all those purchases functions like a "tax" on transactions with the entrant (as discussed further below).

A general economic model of market share discounts is presented by Joseph Farrell, Janis K. Pappalardo, and Howard Shelanski.¹² This model demonstrates that market share discounts offered by a dominant seller can allow it to maintain or raise its price while at the same time increasing the buyer's opportunity cost of purchasing significant volumes from rivals—and therefore reducing the buyer's incentive to do so. The buyer's incentives are changed because it forgoes discounts for reaching threshold share targets when it buys more from the seller's rivals. That makes buying from rivals expensive in terms of opportunity cost. In essence, the loyalty discount functions like a tax on purchases from the rival. Thus, the incumbent can make it more expensive for its rival and its customers to trade with each other, and drive sales to its own product. The average price of the incumbent's product can be higher in this type of setting, notwithstanding the "discount," because it is able to limit the impact of the rival by carefully designing the shape of the price schedule.¹³ This result is essentially static in nature and does not depend on assumptions concerning exit, economies of scale, pricing below cost, or other factors.

Thus, the economic literature demonstrates that some types of exclusive dealing and carefully designed market share discount contracts can effectively raise the cost of entry or the price to the consumer of using an entrant's product. If the CRR induces consumers to buy the competitive product from the incumbent, then the entrant enjoys fewer unit sales and earns less revenue and lower profit.¹⁴ Lower unit sales keep the entrant's average costs high, and thus the CRR may prevent the entrant from overcoming a hurdle to effective entry, such as scale economies. Lower profits also may limit the entrant's ability to invest and provide competition for the other products of the dominant firm.¹⁵

Several papers empirically demonstrate the anticompetitive effects exclusivity provisions and market share discounts can cause in particular settings.¹⁶ For instance, Jeffrey Wilder shows that insurance agents subject to *ex post* market share bonuses recommend the product to more clients than they otherwise would,¹⁷ while Mara Lederman demonstrates that dominant airlines' frequent flier programs that give valuable benefits once a flier reaches a high level of usage (analogous to a price discount in exchange for a certain level of sales) lead to higher fares.¹⁸

The DOJ and FTC have successfully challenged CRRs based on such theories of competitive harm. For instance, the Third Circuit upheld the Department's challenge to Dentsply's practice of refusing to sell to distributors that carried other manufacturers' artificial teeth, explaining that this practice kept sales of competing manufacturers "below the critical level necessary for any rival to pose a real threat to Dentsply's market share."¹⁹

Recently, the DOJ challenged United Regional Hospital of Wichita's contracts offering two sets of prices to insurers. United Regional charged one price if the insurer dealt exclusively with it, and a second price, up to 27 percent higher, if the insurer also dealt with one of United Regional's competitors. The United States alleged in its complaint that these terms "delayed and prevented the expansion and entry of United Regional's competitors."²⁰

Similarly, in the FTC's *Intel* case, the Commission alleged that "Intel taxed OEM purchases of non-Intel CPUs through the use of market share discounts" and that this "tax" allowed Intel to prolong its monopoly power.²¹

Antitrust challenges to this type of CRR also arise in private litigation. The *Sabre* case, for example, involves allegations that Sabre's market share discounts to travel agents prevented entry of competing booking platforms.²² Those competing platforms allege that the financial penalties the agent must pay for falling beneath certain shares of flights booked with the Sabre global distribution system (GDS) allegedly raised the opportunity cost of purchasing from entrants, as predicted in the Farrell model.²³

In the *ZF Meritor* case the dominant transmission maker, Eaton, was found to have harmed competition and violated the antitrust laws by foreclosing a substantial share of the market through the use of contractual provisions mandating

a price advantage for its own product relative to its rival (Z.F. Meritor) and employing market share discounts.²⁴ For example, the market share contract with truck maker International featured an up-front payment of \$2.5 million and additional sliding scale rebates conditioned on International's purchasing 87 percent to 97.5 percent of its requirements from Eaton. Thus, if the buyer (International) had purchased more than 13 percent of its transmission needs from the seller's rival (ZF Meritor), the buyer would have to refund the \$2.5 million to the seller (Eaton). The court found that the effect of these contractual provisions and other behavior was to limit the market share of the entrant ZF Meritor to a level low enough to result in exit.

As noted above, there is no simple rule that can be applied to determine when such vertical contracts are on balance procompetitive or anticompetitive. This is because a number of efficiencies have the potential to flow from these types of CRRs, depending on the specifics of the situation. Consider that the exclusive contract or loyalty discount may allow the incumbent to achieve economies of scope, or economies of scale, or to ensure a higher quality product or service, for example, by discouraging free riding.²⁵

Contracts that Require Information

Another type of contract that references rivals is one where the sales price is conditional on the buyer delivering certain information to the seller. This information may cover products of rival sellers that the buyer is buying, or even products that other buyers are buying from different sellers. One case with these features is the recent investigation and enforcement action of Lufthansa by the Bundeskartellamt (the German Federal Cartel Office). The Bundeskartellamt announced that, in order to get special discounts, Lufthansa's corporate customers were required to give Lufthansa detailed information about flights they booked with Lufthansa's competitors, including discounts.²⁶ Lufthansa's justification for the CRR was that the data were necessary for calculating incentive payments for customers and for improving service.²⁷ The Bundeskartellamt nonetheless determined that these clauses were violations of German and EC competition law, and Lufthansa has committed to remove them.²⁸

A large body of economic literature demonstrates that exchanges of information about rivals' prices or products may lead to higher prices under some circumstances.²⁹ For example, suppose two firms are coordinating on price—there is no agreement, but one firm tends to lead list price increases and the other promptly matches. Further, suppose that the difficulty with sustaining high prices in this industry is that it is possible to offer corporate customers secret discounts. To mitigate this problem, the leading firm creates CRRs for all its customers that require frequent reporting of the net prices offered by all competing suppliers. This CRR enables the leading firm to promptly discover any instances when its rivals are discounting certain products to certain customers. It then may choose to match those prices to those customers

or reduce price even further. Since the discounting firm would, as a result, no longer expect to be the lowest-priced firm or to gain share as a result of its discounts, it would be more likely to return to the cooperative price—or not offer the secret discount in the first place. In this setting, the information gleaned about rivals' prices can help sustain a collusive price in the market.

MFNs and Network Contracting

MFNs and network provisions have also been the subject of considerable economic study. Various economic studies have concluded that they too have the potential to harm consumers,³⁰ and they have also been the subject of both government and private litigation.³¹ Static models feature either oligopoly or a fragmented market with significant share covered by the MFN. The literature here is extensive, beginning with the work of Steven Salop.³² Thomas Cooper shows that MFNs result in higher equilibrium prices in a perfect-information model of a price-setting duopoly with differentiated products.³³ This result obtains despite the fact that individual buyers may request MFN protection, and may even believe that the MFN leaves them better off. Indeed, the idea that the buyer requests the MFN, and that the MFN will deliver a lower price to the buyer, is a common intuition for why MFNs should be procompetitive. However, consideration of the MFNs effect on the seller's incentives reveals that the equilibrium outcome with MFNs will, in general, *not* feature lower prices.

When the seller has given MFN coverage to a substantial share of its buyers, a low price to any particular buyer *must* be extended to all other buyers who have price protection. This makes the low price very expensive for the seller, reducing its incentive to offer a price cut to any buyer that otherwise would receive one. Thus, in this type of setting, a supplier is less likely to offer discounts to any of its customers, and the effect of this MFN is to raise equilibrium prices. The empirical work on MFNs confirms that, when introduced into markets otherwise characterized by price competition, MFNs may give rise to higher prices.³⁴ This is particularly so when the buyers that are covered by the MFN have a large combined market share.³⁵

While one large buyer may have sufficient share to generate competitive effects with its MFN, it is also possible that many small symmetric buyers with MFNs can generate a similar financial penalty. The literature has also shown that we should expect suppliers to introduce such MFN arrangements under certain conditions. For example, early work by Cooper demonstrates that adoption of MFNs may arise endogenously in duopoly markets. This is consistent with the observation that MFNs are common in the U.S. economy.³⁶

Simple dynamic models can also be used to illustrate the potential for MFNs to cause anticompetitive harms. Again, the market structure can take various forms in such a model—there may be a dominant firm or the market may be characterized by oligopoly or a significant degree of fragmentation.

Consider a standard economic model in which (a) incumbents and entrants must purchase an input from arm's-length suppliers, and (b) the incumbents initially benefit from some advantage that is unavailable to entrants. For example, an incumbent could enjoy a well-established brand or a reputation for quality, or its consumers may incur significant costs of switching to an entrant's product. Under such conditions, the entrant would need to provide consumers with reasons to purchase its product or to employ some approach that allows the entrant to overcome the incumbent's advantages. Economic models of such situations typically assume that this approach takes the form of price reductions.³⁷ In such situations, the entrant offers prospective customers a discount relative to the price offered by the incumbent in order to induce consumers to try its product.

Such price-cutting strategies can be deterred when MFN contracts are in force and rivals cannot evade them with quality or service improvements. Suppose that the entrant would be able to compete with its low-price strategy against the incumbent if it were able to obtain lower input prices than the incumbent (as this would in turn allow it to charge lower prices). If the incumbent is able to secure MFN agreements with most of the suppliers, however, the suppliers will have reduced—or possibly completely attenuated—incentives to offer a discount to the entrant. This is most likely when the incumbent has a large share of the suppliers' business. In this situation, the entrant cannot achieve low input prices because of the MFN. Moreover, even if suppliers nevertheless did extend discounts to the entrant, this would do little to encourage market entry, because the incumbent would enjoy the same input pricing as the incumbent. Because in this setting the entrant will never be able to create a cost advantage vis-à-vis the incumbent, its entry could effectively be blocked by the MFN.

The facts described in the DOJ's consent decree in the *Delta Dental* case illustrate the operation of this type of model in the real world.³⁸ The entrant, Dental Blue, was innovative, in the sense that it was using a narrow network, or selective contracting, strategy. Its business plan was to contract with only a subset of Rhode Island dentists at a low price in exchange for steering enrollees to them. Delta Dental, by contrast, contracted with 90 percent of Rhode Island dentists and did not steer patients. Delta Dental had MFN contracts with its dentists.

When Delta Dental enforced its MFN, thereby requiring its dentists to charge Delta Dental the same low price it charged the entrant, those dentists who had also signed up with Dental Blue pulled out of Dental Blue's plan. The financial cost to giving Delta (at 35–45 percent of the market) the same low price as the entrant was too high for the dentists to accept, given the relatively smaller amount of business the entrant could offer. In this way, the imposition of symmetry in a market by way of an MFN may stifle differentiated entry that would have increased consumer welfare.

These same arguments can be seen in the DOJ's 2010

complaint against Blue Cross Blue Shield of Michigan (BCBS). The complaint describes how BCBS's MFN created a pricing penalty for any hospital that might agree to serve an entrant at lower cost.³⁹ In addition, the government alleged the standard static harm of softer price competition and higher prices. This is particularly relevant in the Michigan case because of the use of so-called "MFN plus" provisions. These are contract terms that require a hospital to give the covered buyer a discount relative to other buyers, e.g., other insurers are guaranteed to be charged a price at least X percent more than the covered insurer. As described in the Michigan complaint, BCBS employed MFN plus contracts with hospitals where "plus" in "MFN plus" ranged from 10 percent to 40 percent. These clauses directly raise the costs of rivals.

Another case alleging both static and dynamic harm is the UK's Office of Fair Trading (OFT) online hotel booking case. In this case it is alleged that the MFN applies to the price the final consumer pays for the hotel room. However, this MFN is part of the contract between the hotel and an online hotel booking platform. If we assume for the sake of argument that the allegations are true, one might analyze the situation in the following way: suppose that the platform wishes to have low prices in the marketplace in order to attract customers. The platform requires the hotel, as a condition of listing its inventory on the platform, not to offer its rooms for a lower price on another site. We can then see that the reasoning in *Delta Dental* could apply in this situation as well. A differentiated entrant—for example, an online booking site catering to student travelers—might wish to list cheap hotel rooms. A hotel with excess capacity in a given week might be willing to post inventory on such a site. Yet the MFN signed with a large incumbent will make it very costly for the hotel to employ a lower-price channel or platform. If such differentiated platforms enable efficient price discrimination and expand output, an MFN signed by a large incumbent could harm consumers.

Moreover, the OFT asserts that the MFN may limit price competition among platforms. As alleged, the MFN leaves the hotel no way to reward a platform that charges the hotel lower fees and, therefore, a lower cost platform cannot offer consumers the benefit of its lower fees by lowering the price of the hotel room. One way to think about the situation alleged is that the price restriction, the MFN, applies to the net price to the hotel plus the platform fee (i.e., the total cost of the room). It is possible that the hotel would prefer lower prices and higher volume on a site that offers lower cost distribution. However, the MFN does not permit this type of response, and in that way could limit competition between platforms. The Sabre litigation mentioned above involving private GDS systems discusses a similar anticompetitive potential: Sabre's MFN allegedly prevents airlines from incentivizing lower-cost distribution channels.

Notwithstanding the foregoing, however, MFNs also have the potential to create efficiencies. While MFNs may deter entry into existing product markets, they also may encourage

the introduction of new products, particularly in cases of uncertainty and relationship-specific investment.⁴⁰ This is likely to benefit consumers by expanding the variety of choices available to them relative to what would have been available in the market absent the MFN.

Another potential procompetitive benefit of an MFN is reduction in free riding. To return to the earlier hotel example, suppose the third-party online booking site contracts to sell the hotel's inventory. However, having attracted consumers via the booking site, the hotel has a financial incentive to encourage customers to click through to the hotel's own site, where it could offer the customer a lower price (because it does not have to pay the platform's fee). In that setting, the online platform would no longer receive any sales to compensate for the investments it made that were specific to doing business with the hotel. This problem can be foreseen by anyone thinking rationally at the time of starting an online booking business. Entrepreneurs might decide not to invest in a booking platform in the absence of an MFN guarantee that protects them from free riding. This setting is analyzed formally by Leslie Marx and Greg Shaffer, who demonstrate that MFNs can be used to limit opportunism by a seller.⁴¹

Another potential benefit to market efficiency is highlighted by Keith Crocker and Thomas Lyon, who show that MFNs can allow transaction prices to reflect current market conditions in a setting where underlying prices are volatile and where efficient investment depends on those prices.⁴² If a business demonstrates efficiencies such as those outlined above, the net effect of the CRR may be procompetitive. The procompetitive effects of the CRR should be taken into account by competition authorities and others when investigating such arrangements.

In industries such as health insurance or auto repair insurance, where construction of a network is critical, one sometimes encounters contracts that refer to rivals, known as "guaranteed inclusion" or "product participation parity."⁴³ Suppose two insurers, A and B, offer equivalent plans (called "bronze" plans) in competition with one another. A product participation parity contract between a provider and Insurer B would specify that if that provider joins Insurer A's "bronze" plan, it must agree to join Insurer B's "bronze" plan as well. Such a restriction, of course, makes it more difficult for Insurer A to differentiate itself in the marketplace with its network vis-à-vis the protected Insurer B. Additionally, the term prevents agreements, potentially at low prices, between providers who might be willing to accept terms with one insurer but not another.

In contrast, a guaranteed inclusion provision requires that an insurer offer Hospital 1 the chance to join its bronze plan if it has such a contract with Hospital 2. When Hospitals 1 and 2 are duopolists in the provider market, guaranteed inclusion prevents Hospital 2 from competing for all of the insurer's business by offering a lower price. Despite Hospital 2's lower price, the insurer would still remain contractually

bound to offer Hospital 1 to its enrollees, and so Hospital 2's discount is less likely to gain it any share.

This type of CRR restricts the ability of the insurance company to differentiate itself with a narrow network or credibly threaten or commit to moving market shares, which in turn may limit price competition. The Massachusetts Attorney General's report on the cost of health care in Massachusetts describes these contractual arrangements as "inhibit[ing] the innovation in product design that could lead to better value for consumers."⁴⁴ Esther Gal-Or models network formation in the health care industry, showing that restrictive networks can either benefit or harm consumers depending on preferences and efficiencies.⁴⁵

Conclusion

Identifying contracts that reference rivals is a useful exercise for managers and their legal advisors because the horizontal nature of what may appear to be a purely vertical CRR may create the possibility of consumer harm. The economic literature demonstrates that CRRs can cause harm to consumers and competition, although the competitive effects of any particular CRR will be specific to the case and setting.

CRRs have been and remain the active subject of government enforcement and civil litigation. From a counseling perspective, it may thus be appropriate to consider whether it is possible to obtain whatever efficiencies may be associated with a particular CRR through some other mechanism. If the efficiencies desired by managers can be achieved without a CRR, then the firm may be able to reduce its antitrust risk at little cost by rewriting its contracts to omit references to rivals. On the other hand, if managers carefully analyze whether the efficiencies can be achieved using a different contract and conclude it is not possible, the executives of the firm and their counsel will have a clearer understanding of the procompetitive justification for continuing to use the CRR.

Economists have more work to do as well. Further research on the competitive effects of CRRs is needed, especially in the areas of two-sided markets, network industries, and markets for healthcare and related services. ■

¹ Exceptions may exist. For example, many would argue that the BMI/ASCAP blanket licenses, which do not depend on the number of songs used or which songs are used, are the result of procompetitive horizontal agreements that also serve as sales and enforcement mechanisms. See *Broadcast Music, Inc. v. CBS*, 441 U.S. 1 (1979); Joseph W. deFuria Jr., *Reasoning Per Se and Horizontal Price Fixing: An Emerging Trend in Antitrust Litigation?*, 14 PEPP. L. REV. 1 (1987).

² For a review of economic theories of vertical arrangements, including their efficiency-enhancing and anticompetitive aspects, see Paul Joskow, *Vertical Integration*, in 1 AMERICAN BAR ASSOCIATION, SECTION OF ANTITRUST LAW, ISSUES IN COMPETITION LAW AND POLICY 273–293 (W. Dale Collins, ed. 2008).

³ For examples of government litigation, see *United States v. Blue Cross Blue Shield of Michigan*, No. 2:10-cv-14155 (E.D. Mich. Oct. 18, 2010) (complaint challenging Blue Cross's use of most-favored nation (MFN) clauses), and *United States v. American Express Co.*, No. 1:10-cv-04496 (E.D.N.Y. Oct. 4, 2010) (complaint challenging American Express's use of contractual

- MFN provisions prohibiting merchants from promoting or encouraging the use of a competing credit or charge card). For an example of private litigation, see *US Airways, Inc. v. Sabre Holdings Corp.*, No. 11-cv-2725 (S.D.N.Y. Apr. 21, 2011) (complaint challenging MFNs, market share discounts, and exclusivity arrangements).
- ⁴ Some CRRs involve more implicit references to rivals and may operate with less precision as a result. For instance, pure quantity discounts involve contract terms that provide a discount for purchasing a certain quantity, but they do not preclude rivals from obtaining similar contract terms. They are common and often efficient because they can enable economies of scale or cost-justified price discrimination. But depending on the thresholds at which the discounts kick in, quantity discount contracts may have effects similar to those of market-share discounts, and thus make the effects of such a contract similar to those of a CRR. However, even under these circumstances quantity discounts can be substantially less precise with regard to rivals than market share discounts. For instance, when a buyer has private information about its own demand, it may be hard for a seller to set the quantity-discount threshold at a level that precludes entry or inhibits the growth of rivals. When demand varies significantly over time, a buyer who sets the quantity discount threshold based on the last period's purchases may still leave room for a rival to sell a significant share. Another relevant factor is whether the quantity discount thresholds are common across buyers, which again would tend to reduce their precision and competitive effects. In contrast, a contract with a quantity discount threshold that is buyer-specific may have effects similar to those of market share CRRs.
- ⁵ See, e.g., ROBERT H. BORK, *THE ANTI-TRUST PARADOX* 304–09 (1978).
- ⁶ Steven Salop & Thomas Krattenmaker, *Exclusion and Antitrust*, AEI J. ON GOV'T & SOC'Y (1986); Patrick DeGraba, *Naked Exclusion by an Input Supplier: Exclusive Contracting and Loyalty Discounts* (FTC Working Paper No. 306, May 2011), available at <http://www.ftc.gov/be/workpapers/wp306.pdf>; Dennis Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194 (2002).
- ⁷ See, e.g., *Stergios Delimitis v. Henninger Bräu AG*, No. C-234/89, E.C.R. I-935 (Feb. 28, 1991) (agreements among smaller firms relating to distribution of beer have a cumulative anticompetitive effect).
- ⁸ For studies on the competitive effects of various forms of exclusive dealing (such as naked exclusion and tying), see Carlton & Waldman, *supra* note 6; Ilya R. Segal & Michael D. Whinston, *Naked Exclusion: Comment*, 90 AM. ECON. REV. 296 (2000); and Eric B. Rasmusen, J. Mark Ramseyer & John S. Wiley, Jr., *Naked Exclusion*, 81 AM. ECON. REV. 1137 (1991). For studies on the competitive effects of market-share ("loyalty") discounts, see DeGraba, *supra* note 6; see also Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837 (1990).
- ⁹ See, e.g., *United States v. Dentsply Int'l Inc.*, 399 F.3d 181 (3d Cir. 2005) (challenging exclusive dealing arrangements); *United States v. Microsoft Corp.*, 147 F.3d 935 (D.C. Cir. 1998) (challenging use of per-processor licenses, which were contract terms requiring computer manufacturers to pay Microsoft a royalty for each computer sold, regardless of whether the computer included a Microsoft processor); *United States v. United Regional Health Care Sys.*, No. 7:11-cv-00030 (N.D. Tex. Sept. 29, 2011) (complaint challenging discounting arrangements that functionally served as exclusivity arrangements); *Intel Corp.*, FTC Docket No. 9341 (Nov. 2, 2010) (settlement prohibiting various discounting practices such as those conditioned on sales thresholds, exclusivity, or minimum market shares).
- ¹⁰ Whinston, *supra* note 8.
- ¹¹ Dennis W. Carlton, Patrick Greenlee & Michael Waldman, *Assessing the Anticompetitive Effects of Multiproduct Pricing*, 53 ANTITRUST BULL. 587 (2008).
- ¹² Joseph Farrell, Janis K. Pappalardo & Howard Shelanski, *Economics at the FTC: Mergers, Dominant-Firm Conduct, and Consumer Behavior*, 37 REV. INDUS. ORG. 263 (2010) (discussion of the Transitions Photochromatic Lenses matter). See also Joseph Farrell, *Problems with Loyalty Pricing*, Address at the Fourth Annual Searle Research Symposium on Antitrust Economics and Competition Policy, Northwestern Univ. (Sept. 23, 2011). At the time of this speech, Professor Farrell was the Director of the Bureau of Economics of the Federal Trade Commission.
- ¹³ In this setting, the seller's average price would not necessarily fall below its cost, though its marginal price might.
- ¹⁴ See generally Carlton et al., *supra* note 11.
- ¹⁵ One situation in which this possibility arises is when capital markets are imperfect. Under these conditions, the firm will find external sources of capital to be more expensive than internally generated funds. The lost sales and profits due to this CRR would consequently raise the firm's cost of expansion. Alternatively, the same result would arise in models of private information concerning the future profitability of the entrant in this market. External funding sources consider both the profitability of the initial product and the potential profitability of subsequent products in determining whether to lend the entrant funds for expansion. If the CRR can reduce the entrant's current and expected future profits, it can make expansion funds more expensive or less available.
- ¹⁶ See, e.g., Dmitri Byzalov, *Unbundling Cable Television: An Empirical Investigation* (July 2010), available at <http://astro.temple.edu/~dbyzalov/cable.pdf>; Gregory S. Crawford, *The Discriminatory Incentives to Bundle in the Cable Television Industry*, 6 QUANTITATIVE MKTG. & ECON. 41 (2008); Mara Lederman, *Are Frequent-Flyer Programs a Cause of the "Hub Premium"?*, 17 J. ECON. & MGMT. 35 (2008); Jeffrey M. Wilder, *Competing for the Effort of a Common Agent: Contingency Fees in Commercial Insurance* (Dep't of Justice Economic Analysis Group Working Paper 03-4, Oct. 2004), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=418061.
- ¹⁷ Wilder, *supra* note 16.
- ¹⁸ Lederman, *supra* note 16.
- ¹⁹ *United States v. Dentsply Int'l, Inc.*, 399 F.3d 181, 191 (3d Cir. 2005).
- ²⁰ *Complaint, United States v. United Regional Health Care Sys.*, No. 7:11-cv-00030 ¶ 64 (N.D. Tex. Feb. 25, 2011).
- ²¹ *Complaint, Intel Corp.*, FTC Docket No. 9341 ¶¶ 53, 55 (Dec. 16, 2009).
- ²² *US Airways, Inc. v. Sabre Holdings Corp.*, No. 11-cv-2725 (S.D.N.Y. Apr. 21, 2011).
- ²³ Farrell et al., *supra* note 12.
- ²⁴ *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254 (3d Cir. 2012), cert. denied, No. 12-1045 (U.S. Apr. 29, 2013).
- ²⁵ For example, exclusive distribution agreements may be used by manufacturers to prevent distributors from free riding on their promotional efforts: "By getting the best deal for themselves, distributors also obtain the best deal for consumers." Benjamin Klein, *Exclusive Dealing as Competition for Distribution "On the Merits"*, 12 GEO. MASON L. REV. 1 (2003).
- ²⁶ Andreas Mundt, President of the Bundeskartellamt, is quoted as stating: "The clauses gave Lufthansa access to competitively sensitive information of rival companies. In order to qualify for certain discounts or sales refunds, major customers of Lufthansa had to provide such data. This included not only information about flights booked with companies belonging to the Lufthansa group and its cooperation partners but in particular also sales data for flight bookings with its competitors." The same news release explained that "For the calculation of special discounts and sales refunds (so-called incentive services) corporate clients had to transmit to Lufthansa all the sales data of flights which they had bought within a certain calculation period by means of a specific corporate credit card. This information also included flights which the client had booked with Lufthansa's competitors (data tracking)." See Bundeskartellamt, *Lufthansa Changes Anti-competitive Clauses in Corporate Client Programme*, (Dec. 20, 2012) [hereinafter *Bundeskartellamt*], available at http://www.bundeskartellamt.de/wEnglisch/News/press/2012_12_20.php.
- ²⁷ Amon Cohen, *Lufthansa Denies Improper Use of Client Data*, BUSINESS-TRAVELNEWS.COM (May 10, 2011), <http://www.businesstravelnews.com/article.aspx?id=20357&ida=Airlines&a=btn>.
- ²⁸ See Bundeskartellamt, *supra* note 26.
- ²⁹ George Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44 (1964); Edward Green & Robert Porter, *Non-Cooperative Collusion Under Imperfect Price Information*, 52 ECONOMETRICA 87 (1984); Marc Ivaldi et al., *The Economics of Tacit Collusion*, Final Report for DG Competition, European Commission 22–25 (2003); Kai-Uwe Kühn, *Fighting Collusion by Regulating Communication Between Firms*, 16 ECON. POL'Y 167–204 (2001). Information Ex-

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- changes Between Competitors Under Competition Law, OECD Policy Roundtable DAF/COMP(2010)37 JT03305151 (July 11, 2011), pp. 28–29; Matthew Bennett & Philip Collins, *The Law and Economics of Information Sharing: The Good, the Bad, and the Ugly*, 6 EUR. COMPETITION J. 320–24 (2010).
- ³⁰ For studies on the competitive effects of MFNs, see Steven C. Salop, *Practices that (Credibly) Facilitate Oligopoly Co-ordination*, in NEW DEVELOPMENTS IN THE ANALYSIS OF MARKET STRUCTURE (Joseph E. Stiglitz & G. Frank Mathewson, eds. 1986); Thomas E. Cooper, *Most-Favored-Customer Pricing and Tacit Collusion*, 17 RAND J. ECON. 377 (1986); and Monika Schnitzer, *Dynamic Duopoly with Best-Price Clauses*, 25 RAND J. ECON. 186 (1994).
- ³¹ See, e.g., United States v. Delta Dental of R.I., 943 F. Supp. 172 (D.R.I. 1996); RxCare of Tenn., 121 F.T.C. 762 (1996); United States v. Lykes Bros. S.S. Co., 60 Fed. Reg. 52,208 (DOJ Oct. 5, 1995); United States v. Blue Cross Blue Shield of Mich., No. 2:10-cv-14155 (E.D. Mich. Oct. 18, 2010); US Airways, Inc. v. Sabre Holdings Corp., No. 11-cv-2725 (S.D.N.Y. Apr. 21, 2011).
- ³² Salop, *supra* note 30.
- ³³ Cooper, *supra* note 30.
- ³⁴ See, e.g., Maria Arbatskaya, Morten Hviid & Greg Shaffer, *On the Incidence and Variety of Low-Price Guarantees: A Case Study*, 47 J.L. & ECON. 307 (2004); Maria Arbatskaya, Morten Hviid & Greg Shaffer, *Promises to Match or Beat the Competition: Evidence from Retail Tire Prices*, 8 ADVANCES IN APPLIED MICROECONOMICS 123 (2000).
- ³⁵ Fiona Scott Morton, *The Strategic Response by Pharmaceutical Firms to the Medicaid Most-Favored-Customer Rules*, 28 RAND J. ECON. 269 (1997).
- ³⁶ See, for example, the panel remarks by participants at the DOJ//FTC MFN conference in September 2012, available at <http://www.justice.gov/atr/public/workshops/mfn/>.
- ³⁷ This is because price-cutting entry strategies are frequently observed in the real world.
- ³⁸ United States v. Delta Dental of R.I., 943 F. Supp. 172 (D.R.I. 1996). The FTC’s Tennessee RxCare consent decree provides another good illustration of enforcement agencies’ perspective on these effects. RxCare of Tenn., 121 F.T.C. 762 (1996).
- ³⁹ Complaint at 21, United States v. Blue Cross Blue Shield of Mich., No. 2:10-cv-14155 (E.D. Mich. Oct. 18, 2010).
- ⁴⁰ For a fuller discussion of the possible benefits from MFNs, see Stephen Salop & Fiona Scott Morton, *Developing an Administrable MFN Enforcement Policy*, ANTITRUST, Spring 2013, at 15.
- ⁴¹ Leslie M. Marx & Greg Shaffer, *Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity: Comment*, 94 AM. ECON. REV. 796 (2004).
- ⁴² See, e.g., Keith J. Crocker & Thomas P. Lyon, *What Do “Facilitating Practices” Facilitate? An Empirical Investigation of Most-Favored-Nation Clauses in Natural Gas Contracts*, 37 J.L. & ECON. 297 (1994).
- ⁴³ See, e.g., OFFICE OF MASSACHUSETTS ATTORNEY GENERAL MARTHA COAKLEY, EXAMINATION OF HEALTH CARE COST TRENDS AND COST DRIVERS 40–43 (Mar. 16, 2010), available at <http://www.mass.gov/ago/docs/healthcare/2010-hcctd-full.pdf>.
- ⁴⁴ *Id.* at 41.
- ⁴⁵ For studies of the competitive effects of network provisions, see Esther Gal-Or, *Mergers and Exclusionary Practices in Health Care Markets*, 8 J. ECON. & MGMT. STRATEGY 315 (1999), and Esther Gal-Or, *Exclusionary Equilibria in Health-Care Markets*, 5 J. ECON. & MGMT. STRATEGY (1997).