# DEPARTMENT OF JUSTICE

# Contracts that Reference Rivals

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In antitrust, the analysis of horizontal agreements among firms is longer established and typically raises fewer complexities than analysis of vertical contracts. For instance, naked agreements to limit price competition among horizontal competitors have clear anticompetitive effects. Consensus among scholars and policy makers over many years and in many jurisdictions is that any efficiency-enhancing aspect of such an agreement is almost always swamped by the harm to competition. By contrast, the effects of vertical contracts are varied. Economic theory and practical experience show that a vertical arrangement among firms may create a new product or a lower cost delivery channel. However, those same tools demonstrate that certain vertical contracts could exclude an efficient competitor from the marketplace or disadvantage rivals. In the face of this variety, 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.

Practitioners and managers find this result – each situation is different and needs individual analysis – to be unhelpful. In the extreme form, it provides no guidance on which managers can rely to get a sense, before adoption, whether a business practice will run afoul of the antitrust laws. The following remarks are designed to help with this problem. As I state a number of times below, the type of contracts I discuss can be pro-competitive or anti-competitive, so I will not be able to provide a very simple blanket rule. However, the contracts I highlight here involve more horizontal information-sharing than some other types of vertical contracts, and therefore deserve additional scrutiny. Absent a compelling business justification, practitioners may wish to avoid them for this reason.

Consider first a contract between firms over the purchase of an input. Some contracts lay out a price per unit which the buyer must pay; others describe a quantity volume schedule open to all buyers, with one per-unit price for purchase of a limited number of units and a, typically lower, per-unit price for purchases of large numbers of units. I will call these standard contracts, and they are the benchmark I have in mind. By contrast, a contract between a buyer and a seller may refer to, and its terms may depend on, information *outside* the buyer-seller relationship: information from other transactions to which those same firms are 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. I call these Contracts that Reference Rivals, or CRR.

An example of CRR is a purchase agreement containing a market share discount: the buyer will receive a discount on incremental units, or perhaps all purchased units, if it buys 90% or more of its needs from one seller. Note that the price the buyer pays on its purchases from one seller are *linked* to its purchases at rival sellers. Buying more than 10% of its needs from the rival sellers will increase the price paid in the contract.

Over the years, a number of investigations at the Antitrust Division have involved contracts that reference other transactions in the marketplace. Likewise, economists have studied many types of CRRs. The goal of this paper is to provide a brief survey of past and current CRR cases as well as the findings in the economic literature. The short preview of my conclusions is that the economics literature has identified many

circumstances where CRRs have the potential to harm consumers and competition, particularly -- but not always -- when they involve firms with market power. CRRs have thus been, and will continue to be, the subject of antitrust scrutiny, both at the government and in private litigation.[1]

**Identifying CRRs**

A quick test for assessing whether a CRR exists is to ask whether the terms of a transaction between a buyer and seller depend on the specifics of a different buyer-seller relationship involving at least one of the same parties. Another way to ask this same question is, in order for the final price or terms in the contract to be determined, does the buyer or seller need to know the details of a rival's contract? For instance, exclusive-dealing transactions depend on whether there have been any purchases from rival sellers. Market-share discounts depend on how much a buyer has purchased from rival sellers. 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. MOR gives the incumbent seller the right to learn of the new seller's price and match it in order to keep the business. Network-inclusion

[1] For examples of government litigation, see *United States v. Blue Cross Blue Shield of Michigan*, No. 2:10-cv-15155 (E.D. Mich. filed Oct. 18, 2010) (complaint challenging Blue Cross's use of most-favored clauses) and *United States v. American Express Co.*, No. 1:10-cv-04496 (E.D.N.Y. filed Oct. 4, 2010) (complaint challenging American Express's use of contractual 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. filed Apr. 21, 2011) (complaint challenging exclusivity arrangements).

provisions concern what other parties the buyer or seller includes in its network. These provisions allow the buyer or seller to include itself or partners in a provider network if rivals participate. Other CRRs exist, and businesses invent new forms on an ongoing basis. In essence, CRRs are a subset of vertical restraints, where the contractual link and competitive effects concern a relationship with a horizontal rival. The economics literature and the case law suggest CRRs may create a competitive problem unless the provision serves a particular pro-competitive purpose.

Some CRRs are more implicit 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. They are common and often efficient because they can enable economies of scale or price discrimination. But the particular thresholds at which discounts kick in may also mimic market-share discounts, and thus make the contract similar to a CRR. However, quantity discounts can be substantially less precise than market share discounts in some settings, and for this reason we may expect them to be less effective for anticompetitive purposes. 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 is variable, setting the discount threshold at some function of last period's purchases may still leave room for a rival to sell significant share. Another factor that is relevant is whether the quantity discount thresholds are common across buyers, which again would tend to reduce their precision. In contrast, a threshold that is buyer-specific may be more of a problem.

**The Competitive Effects of CRRs**

The competitive effect of a particular CRR depends on the market circumstances. Of course, not all CRRs cause competitive harm. For instance, observing that a buyer has bought exclusively from one seller is not necessarily a problem: sellers may bid for a buyer's business, and a particular buyer may choose to extract all surplus by buying from one seller. The classic models predict no harm in these circumstances.[2]

The economic literature indicates that the settings where CRRs are most likely to harm consumers and competition involve dominant firms possessing market power and a high market share. But some models show competitive harm when numerous similar firms, none of which is dominant, employ a CRR. For instance, models predicting harm from MFNs or network-parity provisions do not feature a dominant firm and may instead feature a CRR web that renders sellers more symmetric. Even in the absence of a dominant firm, these models demonstrate the possibility of price, innovation, or entry harm.

A second distinction the economics literature makes is whether the CRR causes harm in the form of 'exclusion' or 'collusion.' By the former I mean that the CRR makes it more difficult for an efficient entrant to enter the market and create competition benefiting consumers. The latter type of model shows that the CRR softens price competition and leads to higher equilibrium prices. These types of harm map on to the type of model used to analyze the CRR. Harm from higher prices in equilibrium can

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[2] *See, e.g.*, Robert H. Bork, The Antitrust Paradox 304-09 (1978).

typically be shown with a simple static snapshot of competitive situation. By contrast, 'exclusion' involves a dynamic model. Dynamic models take into account the possibility that the entrant might change its characteristics -- scale being a prime example.

The dynamic story I have in mind in this talk follows the reasoning in Carlton, Greenlee, and Waldman (2008). They consider the situation where a dominant firm produces and sells a full product line. There is also an entrant, which 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 up calendar time. This is because in the real world, even with significant effort and investment, a firm entering with a novel product typically cannot instantaneously produce the 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.

In this dynamic model we see that there is a period when the entrant is only producing a subset of the product line. In this period, the incumbent is a monopolist on the remaining product(s) and would like to protect its profits on those products in future periods. It can do this by discouraging entry into the remaining products on the part of the entrant. Exclusive dealing contracts and carefully-designed market share discounts can effectively raise the price to the consumer of using an entrant's product. If consumers buy the competitive product from the incumbent due to the CRR, then the entrant gains fewer

sales and lower revenue.[3] Lower sales keep the entrant's average costs high, and thus the CRR may prevent the entrant from overcoming barriers such as scale economies. Lower sales also may limit the entrant's ability to invest and provide competition for the other products of the dominant firm.[4]

**Exclusive Dealing and Market Share Discounts**

Exclusive dealing and market-share discounts are two CRRs that have been studied extensively in this dynamic context.[5] Both have been the subject of investigation and

[3] *See generally* Dennis W. Carlton, Patrick Greenlee & Michael Waldman, Assessing the Anticompetitive Effects of Multiproduct Pricing, *53 Antitrust Bulletin* 587 (Fall 2008).

[4] Capital markets may be imperfect and thus the firm will find external sources of capital more expensive than internally-generated funds. Alternatively, the same result would arise in models of private information concerning the profitability of the market. External funding sources consider the profitability of the initial product in determining whether to lend the entrant funds for expansion. If the CRR can reduce the profitability of the entrant's first product, it can make expansion funds more expensive.

[5] For studies of the competitive effects of exclusive dealing, see Dennis W. Carlton & Michael Waldman, The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries, *33 RAND Journal of Economics* 194 (2002); Ilya R. Segal & Michael D. Whinston, Naked Exclusion: Comment, *90 American Economic Review* 296 (2000); and Eric B. Rasmusen et al., Naked Exclusion, *81 American Economic Review* 1137 (1991). For studies on the competitive effects of market-share discounts, see Patrick DeGraba, Naked Exclusion by a Dominant Supplier: Exclusive contracting and Loyalty Discounts", FTC Working Paper No. 306 (Nov. 2010), *available at* http://www.ftc.gov/be/workpapers/wp306.pdf; Michael D. Whinston, Tying, Foreclosure, and Exclusion, *80:4 American Economic Review* 837 (1990).

litigation at the Department of Justice and Federal Trade Commission.[6] For a clear exposition of the competitive effect of exclusive dealing, see Michael D. Whinston (1990). In that paper, which considers both static and dynamic contexts, the author shows that exclusive dealing can have either pro-competitive or anticompetitive effects. When valuations are uniform and the tied product exhibits constant returns to scale, for example, selling a bundle does not enable the monopolist to extract more surplus from consumers or deprive a rival of scale economies. By contrast, if there is a chance to exclude the rival, the monopolist in the first good may have an incentive to require buyers to purchase its second good exclusively.

For studies on the competitive effects of market-share discounts, see for example, Patrick DeGraba (2010). In that setting the entrant needs to make significant sales to a 'branded' buyer in order to signal to the market that its product is high quality ("certification by a tier 1 OEM"). The CRR prevents these branded buyers from purchasing enough of the entrant's product to create this signal. Without the signal, other buyers will not purchase from the entrant, and the entrant cannot expand to the rest of the product line produced by the incumbent.

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[6] *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 System*, No. 7:11-cv-00030 (N.D. Tex. Sept. 29, 2011) (challenging discounting arrangements that functionally served as exclusivity arrangements); *In re Intel Corp.*, No. 9341 (FTC Nov. 2, 2010) (settlement prohibiting certain discounting practices).

A general treatment of market share discounts is presented in Joseph Farrell, *Problems with Loyalty Pricing*.[7] His model demonstrates that market share discounts can allow the dominant firm to reduce output while at the same time restricting the buyer's ability to consume more from rivals. 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. This result is essentially static in nature and does not depend on stories of exit, economies of scale, pricing below cost, etc to achieve the result.

The empirical literature studying exclusives and market share discounts contains a number of papers that demonstrate these effects.[8] For instance, Jeffrey Wilder (2004) shows that insurance agents subject to *ex post* market share bonuses recommend the product to more clients than they otherwise would. Mara Lederman (2008) demonstrates that the steeply nonlinear incentives in dominant airlines' frequent flier programs leads to higher fares.

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[7] Joseph Farrell, Director, Federal Trade Commission, Bureau of Economics, "Problems with Loyalty Pricing", address at the Fourth Annual Searle Research Symposium on Antitrust Economics and Competition Policy, Northwestern University (Sept. 23, 2011).

[8] *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 Marketing & Economics* 41 (2008); Mara Lederman, Are Frequent-Flyer Programs a Cause of the "Hub Premium"?, *17 Journal of Economics & Management* 35 (2008); Jeffrey M. Wilder, Competing for the Effort of a Common Agent: Contingency Fees in Commercial Insurance, Department of Justice Economic Analysis Group Working Paper 03-4 (Oct. 2004), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=418061.

The Department of Justice and the Federal Trade Commission have brought enforcement actions based on these 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."[9] Recently, the Department challenged United Regional's contracts offering two sets of prices to insurers: one price if the insurer dealt exclusively with United Regional and a second, up to 27% higher, price 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."[10] Similarly, in the FTC's Intel case, the FTC 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.[11]

As I noted at the outset, I will not provide a simple rule describing when this type of vertical contract is 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.

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[9] *United States v. Dentsply Int'l, Inc.*, 399 F.3d 181, 191 (3d Cir. 2005).

[10] Complaint, *United States v. United Regional Health Care System*, No. 7:11-cv-00030 ¶ 64 (N.D. Tex. Feb. 25, 2011).

[11] Complaint, *In re Intel Corp.*, No. 9341 ¶¶ 53, 55 (FTC Dec. 16, 2009).

For example, the CRR may allow the incumbent to achieve economies of scope or economies of scale, to market or introduce new products, or to manage demand efficiently.

**MFNs and Network Contracting**

MFNs and network provisions have also been the subject of significant economic study. They too have been found to have the ability to harm consumers,[12] and they have also been the subject of both government and private litigation.[13] Let me begin with the static models that feature either oligopoly or a fragmented market with significant share covered by the MFN. The literature here is extensive, beginning with Salop (1985). Cooper (1986) shows that MFNs result in higher equilibrium prices. This is true despite the fact that individual buyers may request MFN protection, and may even believe that the MFN leaves them better off.[14] 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

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[12] For studies of the competitive effects of MFNs, see Monika Schnitzer, Dynamic Duopoly with Best-Price Clauses, *25 RAND Journal of Economics* 186 (1994); Steven C. Salop, "Practices that (Credibly) Facilitate Oligopoly Co-ordination, in New Developments in the Analysis of Market Structure," New Developments in the Analysis of Market Structure (Joseph E. Stiglitz & G. Frank Mathewson eds., The MIT Press 1986); and Thomas E. Cooper, Most-Favored-Customer Pricing and Tacit Collusion, *17 RAND Journal of Economics* 377 (1986).

[13] *See, e.g.*, *United States v. Delta Dental of R.I.*, 943 F. Supp. 172 (D.R.I. 1996); *RxCare of Tennessee*, 121 F.T.C. 762 (1996); *United States v. Lykes Bros. S.S. Co.*, 60 Fed. Reg. 52,208 (DOJ Oct. 5, 1995).

[14] One reason a buyer might be better off is if the MFN reduced transaction costs to such an extent that, despite the price increase, the buyer's costs on net declined.

should be procompetitive. However, a moment spent thinking about the seller's incentives reveals that the equilibrium outcome with MFNs will, in general, *not* feature lower prices.

In principle, any single small buyer with price protection might end up with a price lower than the price it could negotiate on its own -- provided other buyers do not also have price protection. However, once a significant amount of market share is covered by the MFN, consider the position of the seller. A buyer may come to the seller and offer to take surplus inventory off the seller's hands for a low price. Normally the seller would find the offer attractive. However, under the MFN contracts the low price the buyer is offering must be extended to the entire segment of the market with price protection. This makes the low price very expensive for the seller, its incentive to reduce price in any way has dropped sharply, and the result is that no one gets a discount: equilibrium prices are higher with the MFNs in place.

The empirical work on MFNs demonstrates that MFNs do cause higher prices, particularly when the buyer covered by the MFN has a higher market share (Scott Morton (1997), Arbatskaya et al (1999)).[15] Furthermore, MFNs are common. Work such as Monika Schnitzer (1994) demonstrates that adoption of MFNs will arise endogenously in

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[15] *See, e.g.*, Maria Arbatskaya, Morten Hviid & Greg Shaffer, On the Incidence and Variety of Low-Price Guarantees: A Case Study, *47 Journal of Law & Economics* 307 (2004); Maria Arbatskaya, Morten Hviid & Greg Shaffer, Promises to Match or Beat the Competition: Evidence from Retail Tire Prices, *8 Advances Applied Microeconomics* 123 (1999); Fiona Scott-Morton, The Strategic Response by Pharmaceutical Firms to the Medicaid Most-Favored-Customer Rules, *28 RAND Journal of Economics* 269 (1997).

oligopoly, which is consistent with the observation that there are many markets in the United States where MFNs are used.

MFNs can also cause harm in a dynamic model. Again, the market structure can be varied in these models: a dominant firm, oligopoly, or a fragmented market. Typically, the literature models the incumbent(s) as having some advantage the entrant (initially) lacks. For example, the incumbent has a known brand, a reputation for quality, or switching costs. In such a circumstance, the entrant needs to provide consumers a reason to purchase its product, or a tool to overcome the incumbent's advantage. Typical models use price as that tool; the entrant provides a discount relative to the incumbent and induces consumers to try its product. However, when the MFN is in place, the incumbent is contractually entitled to the low price of the entrant. Thus the entrant can never create an advantage vis-a-vis the incumbent, and entry is blocked. The DOJ consent decree in Delta Dental (1995) is a nice example of the intuition behind this type of model.

Again, these CRRs have the potential to enable efficiencies. The most well-known efficiency in the static MFN context comes from Crocker and Lyon (1994). They highlight that the MFN allows transaction prices to reflect current market conditions in a setting with very volatile prices where efficient investments depend on that price.[16] As I noted at the beginning of the talk, if a business happens to feature an unusual efficiency of this sort, that would be good reason for its manager to accept the antitrust risk and enter into a CRR.

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[16] *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 Journal of Law & Economics* 297 (1994).

In healthcare, one sometimes encounters network contracts that refer to rivals, known as "guaranteed inclusion," or "product participation parity."[17] A product participation parity contract between a provider and Insurer B specifies that if that provider joins Insurer A's bronze plan, it must agree to join Insurer B's bronze plan also. 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. A guaranteed inclusion provision requires that an insurer offer Hospital A the chance to join its bronze plan if it has made an offer to Hospital B. When A and B are rivals in the provider market this clearly prevents Hospital B from taking the insurer's share away from Hospital A by offering a lower price. Likewise, this type of CRR restricts the ability of the insurance company to differentiate itself with a narrow network or credibly commit to moving market shares. Gal-Or (1997, 1999) models network formation in the healthcare industry; she shows that restrictive networks can either benefit or harm consumers depending on preferences and efficiencies.[18] There is no academic work to my knowledge that focuses on the welfare impact of CRRs that restrict the networks insurers or providers can create.

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[17] *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/final-report-w-cover-appendices-glossary.pdf.

[18] For studies of the competitive effects of network provisions, see Esther Gal-Or, Mergers and Exclusionary Practices in Health Care Markets, *8 Journal of Economics & Management Strategy*

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**Conclusions**

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 creates the possibility of consumer harm. The economic literature is clear that harm to consumers and competition *can* flow from CRRs, 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. 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 by rewriting its contracts. If managers attempt to achieve the goals of the firm some other way and fail, so that the efficiency cannot be achieved without the CRR, then managers and counsel will each have a clearer understanding of the pro-competitive justification for the CRR. From a research perspective, more work on the competitive effects of CRRs in two-sided markets, in network industries, particularly healthcare, and on entry games appear to be promising avenues for assessing competitive effects and setting future enforcement priorities.

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315 (1999); and Esther Gal-Or, Exclusionary Equilibria in Health-Care Markets, *Journal of Economics & Management Strategy* 5 (1997).