8 Antitrust analysis of tying arrangements and exclusive dealing

Alden F. Abbott and Joshua D. Wright*

I Introduction
Identifying exclusionary conduct is one of the most controversial tasks in antitrust. As evidenced by the Federal Trade Commission and Department of Justice Joint Hearings on Single Firm Conduct, antitrust jurisprudence is still in the process of identifying what conduct a firm with market power can engage in without creating the risk of antitrust liability. Two areas of significant concern involving potentially exclusionary conduct are tying (and bundling) and exclusive dealing. Both tying and exclusive dealing can potentially harm competition and generate anticompetitive effects under certain conditions that may be difficult to identify in practice. Further, both tying and exclusive dealing contracts are prevalent in markets without significant antitrust market power and have a number of procompetitive uses. The key question for antitrust policy is how to design optimal rules when the costs of false positives (finding liability for an efficient practice) significantly outweigh the costs of false negatives (failing to condemn an anticompetitive practice).

In this chapter, we consider the legal framework applied to tying, bundling and exclusive dealing arrangements and survey the relevant economic literature.

II Tying and bundling arrangements
A tying arrangement occurs when, through a contractual or technological requirement, a seller conditions the sale or lease of one product or service on the customer’s agreement to take a second product or service.¹ The term ‘tying’ is most often used by economists when the proportion in which the customer purchases the two products is not fixed or specified at the time of purchase, as in a ‘requirements tie-in’ sale.² A bundled sale typically refers to a sale in which the products are sold only in fixed proportions (for example, one automobile and one radio; one pair of shoes and one pair of shoe laces; or a newspaper, which can be viewed as a bundle of topic-specific sections such as sports, national news, local news and entertainment). Bundling may also be referred to as a ‘package tie-in’.³ Case law in the US sometimes uses the terms ‘tying’ and ‘bundling’ interchangeably.⁴
A Legal analyses of tying and bundling

American law’s treatment of tying has undergone a major transformation. At first tying was treated as an inherently anticompetitive, per se unlawful practice. In 1947, in *International Salt Co. v. United States*, the Supreme Court stated that ‘it is unreasonable, per se, to foreclose competitors from any substantial market’. Then in 1949, in *Standard Oil Co. v. United States*, the Court opined that ‘[t]ying agreements serve hardly any purpose beyond the suppression of competition’.

Since that time, however, although US courts have continued to state that tying is per se unlawful, they have allowed many tying arrangements to escape automatic condemnation by establishing conditions that must be met before the per se category applies. Beginning with its landmark “Fortner II” decision in 1977, the Supreme Court began to require substantial proof of market power in the tying product before the per se rule would be applied. Although the Court’s 1984 *Jefferson Parish* majority opinion continued to give lip service to a per se analysis – while reemphasizing that market power in the tying product was a requirement for per se illegality – four of the nine Justices issued a separate opinion supporting application of a case-by-case rule of reason to tying. Later that same year, the Court explained that the application of the per se rule to tying had evolved to incorporate a market analysis:

> [T]here is often no bright line separating per se from Rule of Reason analysis. Per se rules may require considerable inquiry into market conditions before the evidence justifies a presumption of anticompetitive conduct. For example, while the Court has spoken of a ‘per se’ rule against tying arrangements, it has also recognized that tying may have procompetitive justifications that make it inappropriate to condemn without considerable market analysis.

Consistent with this approach, the Supreme Court recently acknowledged that, in contrast to its ‘historical distrust of tying arrangements’, there are ‘[m]any tying arrangements . . . [that] are fully consistent with a free, competitive market’. Indeed, the test that lower courts use to determine whether to apply the per se rule to a particular alleged tie ‘increasingly resembles a rule of reason inquiry’. Although the elements of a per se tying violation have been articulated differently, courts generally require that:

1. two separate products or services are involved,
2. the sale or agreement to sell one is conditioned on the purchase of the other,
3. the seller has sufficient economic power in the market for the tying product to enable it to restrain trade in the market for the tied product, and
4. a not insubstantial amount of interstate commerce in the tied product is affected.
For other *per se* violations, such as naked agreements to fix prices, plaintiffs are not required to define the relevant product markets or show that the defendant has market power in the tying product’s market. In addition, some courts have shown a willingness to consider business justifications for the alleged tie, and some courts have required proof that the tie has anticompetitive effects.

The limited scope and shaky underpinnings of the *per se* rule against tying were dramatically underscored in the US Court of Appeals for the DC Circuit’s landmark 2001 decision in *United States v. Microsoft Corp.* That decision refused to apply the *per se* rule to ‘platform software’, thereby creating a ‘technology exception’ to that rule. The court reasoned that application of traditional *per se* analysis in the ‘pervasively innovative’ platform software industry risks condemning ties that may be welfare-enhancing and procompetitive. Certain leading antitrust commentators have opined that ‘the rationale [that the court] articulated for abandoning *per se* condemnation applies well beyond just the software industry’, notwithstanding ‘the court’s protestations to the contrary’.

Courts have sometimes analyzed bundling under the rubric of tying. In *United States v. Loew’s, Inc.*, for example, the Supreme Court found the practice of licensing feature films to television stations only in blocks (or ‘bundles’) containing films the stations did not want to license constituted unlawful tying in violation of Section 1 of the Sherman Act. Nonetheless, in explaining its tying analysis in *Jefferson Parish*, the Supreme Court noted the fact that ‘a purchaser is “forced” to buy a product he would not have otherwise bought even from another seller’ does not imply an ‘adverse impact on competition’. This later statement suggests that bundling would not constitute unlawful tying if the purchaser simply desires to purchase less than the entire bundle of products offered for package sale at a reduced price. Rather, to prevail on an unlawful tying claim, the plaintiff would have to show an exclusionary effect on other sellers as a result of the plaintiff’s thwarted desire to purchase substitutes for one or more items in the bundle from other sources.

More recently, courts have examined bundling in the context of loyalty discounts. For example, in *LePage’s, Inc. v. 3M*, the defendant 3M offered a ‘bundled discount’ on its Scotch brand tape and a variety of other products, provided the retailer met a target for purchases of private label tape from 3M as well. The en banc court affirmed the trial court’s denial of judgment for defendant as a matter of law. The Antitrust Modernization Committee sharply criticized *LePage’s* on the grounds that it offered ‘no clear standards by which firms can assess whether their bundled rebates are likely to pass antitrust muster’ and is ‘likely to discourage firms from offering procompetitive bundled discounts and rebates to consumers’.
The Antitrust Modernization Committee proposed an alternative, three pronged standard which would require the plaintiff to demonstrate the following in order to establish a violation of Section 2 in addition to the conventional requirements: (1) after allocating all discounts and rebates attributable to the entire bundle of products to the competitive product, the defendant sold the competitive product below its incremental cost for the competitive product; (2) the defendant is likely to recoup these short-term losses; and (3) the bundled discount or rebate program has had or is likely to have an adverse effect on competition.31

Consistent with the evolution in legal thinking by the courts, the US federal antitrust agencies (the Department of Justice and Federal Trade Commission) in effect endorsed a structured rule of reason for intellectual property tying and bundling in the 1995 Antitrust Guidelines for the Licensing of Intellectual Property (‘Antitrust-IP Guidelines’).32 The Antitrust-IP Guidelines recognize that ‘[c]onditioning the ability of a licensee to license one or more items of intellectual property on the licensee’s purchase of another item of intellectual property or a good or a service has been held in some cases to constitute illegal tying’,33 but also state that ‘[a]lthough tying arrangements may result in anticompetitive effects, such arrangements can . . . result in significant efficiencies and procompetitive benefits’.34 Pursuant to the Antitrust-IP Guidelines, the agencies consider both the anticompetitive effects and the efficiencies attributable to a tie, and would be likely to challenge a tying arrangement if: ‘(1) the seller has market power in the tying product’, which the agencies will not presume necessarily to be conferred by a patent, copyright, or trade secret; ‘(2) the arrangement has an adverse effect on competition in the relevant market for the tied product; and (3) efficiency justifications for the arrangement do not outweigh the anticompetitive effects’.35 If a package license constitutes tying,36 the Agencies will evaluate it pursuant to the same rule of reason principles they use to analyze other tying arrangements.

In sum, US courts and federal antitrust enforcement agencies increasingly focus on the actual economic effects of particular tying and bundling arrangements in assessing their legality. The ostensible per se prohibition on tying remains applicable only under a limited set of conditions. There is good reason to believe that the Supreme Court will formally reject the per se rule and hold that the antitrust rule of reason applies to tying and bundling, if and when presented with the opportunity to do so.37

**B Economic analysis of tying and bundling**

The shift by courts and enforcers toward a more detailed fact-specific market analysis of tying and bundling arrangements is consistent with the economics literature. That literature suggests that the potential for
Tying arrangements and exclusive dealing

Anticompetitive harms may vary based on surrounding circumstances and that tying and bundling will often generate efficiencies. Whether tying and bundling increase or decrease consumer welfare will depend on the circumstances accompanying their use. Nevertheless, many economists believe that, in general, tying and bundling are much more likely to be procompetitive than anticompetitive.

1 Theories of competitive harm

The early economics literature on tying identified two reasons to question whether tying and bundling are likely, as a general matter, to be useful tools for leveraging monopoly power in one market into monopoly power in a second market. First:

- Tying rarely gives the producer of the tying product a monopoly position in the market for the tied product. A new entrant would have no difficulty in procuring in the open market the requisite cards or ink or salt to supply together with its business machines, duplicating equipment, or salt machinery.

Second, a firm with a monopoly in the tying product may be unable to increase its profits by seeking to collect rents from a complementary product. Under the ‘one monopoly profit argument’, if the same consumers are buying both products in fixed proportions, it is the total price that determines consumer sales and the monopolist’s pricing decisions. Consequently, a monopolist would have to lower the price on the tying product to keep the total price unchanged at the profit-maximizing level. As such, the principal motives for the tie would not be exclusionary conduct aimed at monopolizing the market for the tied product in order to raise its price. Rather, the firm could be using the tie for some other purpose, such as price discrimination or reducing costs.

Further analysis has demonstrated that these conclusions rely on some restrictive assumptions, for example, that the same consumers are buying both products in fixed proportions and that the tied good market has a competitive, constant returns-to-scale structure. By relaxing those assumptions, some economists have identified exclusionary motives for tying, as well as strategic reasons for bundling and tying.

One such line of analysis suggests that, under certain cost and demand conditions, a tying arrangement can enable a monopolist in a tying market to reduce demand for rival products in a second, imperfectly competitive tied market, thus injuring competition. A commitment by the monopolist of the tying product to sell the tying and tied products only as a package enables the monopolist to commit to aggressive pricing of the tied product. If the monopolist raises its price for the tied product, the commitment to tying means that it loses not only some tied product sales, but also some sales in the profitable, monopolized tying product market.
In effect this enables the monopolist to commit itself to a low implicit price for the tied product.\(^46\) When the market for the tied product exhibits scale economies and therefore is oligopolistic, committing to a low price may reduce competitors’ sales and force them to exit.\(^47\) Consumer harm may occur because ‘when tied market rivals exit, prices may rise and the level of variety available in the market necessarily falls’.\(^48\) While providing a potential motivation for exclusion, the analysis points out that ‘the impact of this exclusion on welfare is uncertain’.\(^49\)

Another line of analysis shows that tying may be used to preserve an insecure monopoly in the tying product.\(^50\) Consider a firm that is a monopolist in a primary market and also sells a complementary product in a duopoly market. In addition, the primary and complementary products must be used together to provide value to consumers. The rival seller in the complementary product market can enter the primary market after incurring an entry cost. To deter the rival in the complementary product market from entering the primary market, the monopolist will tie the primary product with its version of the complementary product. By selling only the combination of products, the monopolist is committing to a low price in the complementary market, just as in the model described above. This practice can deny the rival seller in the complementary product market enough sales so that it is not worthwhile for the rival to incur the cost of entering the primary market.\(^51\)

Yet another explanation for the monopoly tying of complementary products posits that under certain conditions the tie allows a monopolist to capture some of the producer’s profits of the complementary good.\(^52\) According to this explanation:

the monopolist sometimes ties a product that winds up not being used by consumers . . . in order to extract surplus from, but not exclude, a rival producer. Specifically, the tying improves the monopolist’s position in the pricing game that follows and serves to shift profits from the rival to the monopolist.\(^53\)

Although ‘this type of tying is frequently inefficient because, for example, consumers do not use the tied good in equilibrium’,\(^54\) this social inefficiency arguably does not justify antitrust intervention. That is because, as the authors note, the tie ‘has nothing to do with harming the competitive process in the sense of creating additional market power’ (rivals are not excluded and consumer do not pay a higher total price).\(^55\)

As already indicated, tying or bundling intended to gain market share at rivals’ expense need not imply consumer harm. Tying may allow for price discrimination, resulting in higher prices for some consumers than would prevail absent a tie, but lower prices for others. Even in the simplest examples, without price discrimination, tying may either raise or lower prices
and raise or lower output. Non-monopolists may both gain market share and reduce prices to consumers through tying or bundling. A firm that sells two complementary products has an incentive to lower the price of one to increase sales of the other. In this case, the first firm to act in this manner enjoys a huge market-share gain over its uncoordinated rivals. Moreover, those rivals do not respond by offering bundles of their own, because that would serve only to intensify the competition and leave the rivals worse off. In this scenario, bundling can reduce all prices, because consumer prices are lower when one firm that bundles competes against firms that sell single components independently than when no firms bundle.

2 Procompetitive efficiencies

Theoretical work in economics suggests that tying or bundling may often generate efficiencies. Economists postulate that tying and bundling can enhance consumer welfare in many ways, such as economies of joint sales, quality assurance and protection of goodwill, and cheating on a cartel price. Economies of joint sales, for example, are present throughout the economy, as in the case of shoes and shoelaces and indeed virtually every manufactured product. Quality assurance may be achieved by tying sales of products to sales of services (warranty repair) or consumables (fast-food franchisees may be required to buy critical ingredients from the franchisor). Cheating on a cartel price may be accomplished by bundling the cartelized product with valuable extras that act as a secret price discount on the cartelized product. In addition, price discrimination, such as through metering, can allow markets to be served that would not be served under a single-price monopoly. For example, light and heavy users of printers may both be served if they can buy a manufacturer’s printer at a low price and its ink cartridges at a price above marginal cost. Metering theories, of course, apply only when products can be purchased in variable proportions.

Some of the potential efficiencies result from joining the products in a single bundle. Empirical work on tying and bundling in competitive markets is consistent with the theory that such practices can reduce production costs. For example, consumers can purchase cold tablets that bundle active ingredients to relieve coughs, congestion and headaches at a significantly lower effective price than if the consumer purchased each of those remedies individually, because the incremental cost of adding one more active ingredient to a tablet that already is being produced is negligible. Competition can cause much of the cost savings from bundling to accrue to consumers, making consumers better off than if there were no bundling. Moreover, when the incremental cost of bundling separate goods is small, competition often will result in firms offering the goods both separately and in a bundle, which can improve consumer welfare.
Providing choice may be costly, however. It may not be efficient to provide one of the products separately if only a few consumers prefer it. For example, such a high proportion of consumers want to buy both the left and right shoe as a bundle that the remaining customers do not justify selling them separately. Limiting the combinations of options can simplify production, which lowers costs and presumably prices to consumers. Thus, although Ford Motor Company offers many options on its Ford Taurus, it offers them only in certain combinations or packages of options, so that not all possible combinations of options are available to consumers. Limiting combinations of options can save fixed costs associated with a full range of product offerings and can foster product-specific cost reductions.

Consistent with this reasoning, a study by two economists found that the bundling of so-called information goods, such as copyrighted music, programming, and other online content on the Internet, may prove welfare-superior to selling such goods on an individual basis. The study noted that the marginal cost of adding additional units of an information good to a bundle of other information goods typically is very low, and that the demand for bundles of goods across customers can be more homogeneous than the demand for the individual components. In such circumstances, it can be more profitable to offer such goods only in a bundle. The study also found that competition between two firms that each offer sufficiently large bundles can make consumers better off, and bundling by a firm facing no competition can increase total welfare but increase or decrease consumer welfare.

3 Empirical evidence A full understanding of the effect of any particular tie or bundle requires a careful analysis of the circumstances surrounding the practice at issue. That likely competitive effects will be fact-dependent makes it difficult to craft statements of general application about the likely competitive effects of tying and bundling. Even an apparently benign statement such as ‘offering consumers choice is better than not offering choice’ may not be correct. Offering consumers more choices can be costly for firms; if the costs of providing more choice exceed the benefits to consumers, more choice can make consumers worse off.

Thus, economists caution against confusing the ‘theoretical possibility of harm with an empirical demonstration of such a harm’. One economist has observed that the difficulty of identifying market settings in which tying and bundling might have exclusionary effects, and the fact that bundling can serve a purely efficiency-enhancing role in some market settings, ‘make . . . the specification of a practical legal standard [for tying and bundling] extremely difficult’. 
A former chief economist of the Federal Trade Commission has argued that documented instances of anticompetitive tying are extremely rare and may not exist. Other economists have made this point about vertical restraints (which include tying and bundling, among other practices) in general. Noting the paucity of empirical support for the proposition that vertical restraints harm consumers (based on a literature review), they argue that one should infer that vertical restraints are likely to be benign or welfare enhancing.

In short, the very limited empirical evidence that exists suggests that tying and bundling are unlikely to be anticompetitive. This supports the trend of the US courts to refuse to condemn these practices absent case-specific evidence of actual anticompetitive effects.

III Exclusive dealing

Exclusive dealing contracts involve a supplier conditioning its sale on the buyer’s commitment not to purchase from the supplier’s rivals. While this technical definition of exclusive dealing requires the buyer to forgo all purchases from the rival supplier, some contracts involve ‘partial’ exclusivity, which involve the buyer committing to a fixed quantity of purchases or a percentage of its total purchases to the supplier in lieu of a ‘full exclusive’. The menu of contracts implicating exclusive dealing includes more than full and partial exclusives. For instance, the economic and legal issues concerning exclusive dealing contracts are also implicated in the analysis of ‘loyalty discounts’ and other contracts which involve supplier commitments to discounts. For example, antitrust analysis of the competitive effects of ‘all units’ and other non-linear discounting schemes where the supplier commits to a discount if the retailer purchases a certain quantity or percentage of total purchases from the supplier can usefully be thought of as exclusive dealing contracts. Exclusive dealing and exclusionary contracts more generally involve a broad spectrum of contracts in our modern economy. These contracts present a number of important antitrust issues requiring principled distinctions to be drawn between procompetitive exclusive dealing and arrangements that might threaten competition and harm consumers.

We begin by discussing antitrust analysis of exclusive dealing contracts with reference to a number of recent legal decisions and conclude by summarizing the economics of exclusive dealing, including possible anticompetitive effects, procompetitive explanations, and the empirical evidence.

A Legal analysis of exclusive dealing

Exclusive dealing contracts have never generated a substantial amount of suspicion under the law. Prior to the passage of the Sherman Act in 1890,
and in the early days of Sherman Act jurisprudence, exclusive dealing contracts ‘continued to be upheld routinely except in rare instances involving actual monopolization’.76 Hostility to exclusive dealing increased after the passage of the Clayton Act in 1914. The first challenges to the practice under Section 3 of the Clayton Act resulted in the Supreme Court holding unlawful the arrangements in *Standard Fashion Co. v. Magrane-Houston Co.*77 and *United Shoe Machinery Corp. v. United States*.78 In 1949, the Court analyzed the exclusive dealing arrangements between gasoline refiners and service stations in *Standard Oil*,79 introducing quantitative foreclosure analysis and condemning the contracts at issue because they foreclosed 49 per cent of the market. In 1951, the Court again condemned exclusive dealing contracts in *Lorrain Journal Co. v. United States*80 under Section 2 of the Sherman Act.

A decade later in *Tampa Electric Co. v. Nashville Coal Co.*,81 the Court ushered in a new era of exclusive dealing jurisprudence in its last exclusive dealing case. The Court articulated that the plaintiff would be required to show that ‘the competition foreclosed by the contract must be found to constitute a substantial share of the relevant market’.82 The Court refused to condemn the exclusive dealing contracts at issue in that case on the grounds that the coal supply contract between Tampa Electric and Nashville Coal was found to be less than 1 per cent of the coal supplied from the Appalachian area.83

Since *Tampa Electric*, the evolution of antitrust jurisprudence concerning exclusive dealing has been limited to lower courts with the exception of the Supreme Court’s tying decision in *Jefferson Parish* that held that a 30 per cent foreclosure would not be sufficient to support a claim. One commentator summarizes modern treatment of the foreclosure analysis in exclusive dealing cases as ‘routinely sustain[ing] the legality of exclusive dealing arrangements with foreclosure percentages of 40 per cent or less’.84

Despite the occasional hostility to exclusive dealing and exclusionary contracts, antitrust jurisprudence has generally acknowledged that competition for contract is ‘a vital form of rivalry . . . which the antitrust laws encourage rather than suppress’.85 Acknowledging the potential consumer benefits that flow from exclusivity, modern antitrust analysis insists that plaintiffs make a prima facie showing of a number of necessary conditions for consumer harm before shifting the burden to the defendant to establish efficiency justifications for its conduct. While this showing includes foreclosure analysis, it also involves a broader inquiry into the potential for the exclusive contracts at issue to harm competition rather than merely disadvantage rivals. This analysis is fairly constant whether the arrangements are challenged under Sections 1 and 2 of the Sherman Act, or Section 3 of the Clayton Act.
The modern ‘rule of reason’ analysis evaluating exclusive dealing contracts focuses on a number of factors, including: the defendant’s market power, the degree of foreclosure, entry conditions, the duration of the contracts at issue, whether exclusivity has the potential to raise rivals’ costs, the presence of actual or likely anticompetitive effects, and business justifications. Areeda and Hovenkamp articulate the prima facie case for exclusive dealing claims as follows:

In order to succeed in its claim of unlawful exclusive dealing a plaintiff must show the requisite agreement to deal exclusively and make a sufficient showing of power to warrant the inference that the challenged agreement threatens reduced output and higher prices in a properly defined market . . . Then it must also show foreclosure coverage sufficient to warrant an inference of injury of competition . . . depending on the existence of other factors that give significance to a given foreclosure percentage, such as contract duration, presence or absence of high entry barriers, or the existence of alternative sources or resale.

A leading exclusive dealing case involving Philip Morris (‘PM’) and its ‘Retail Leaders’ program provides a useful illustration of modern antitrust analysis. Retail Leaders, introduced in October 1998, involved four different ‘participation levels’ corresponding to both the magnitude of PM payments and the amount of advantageous display space provided to PM. At the highest two levels of Retail Leaders, PM not only made promotional payments to retailers but also granted retailers an ‘industry fixture’ that would occupy a specified percentage of total display space for cigarettes. At the highest level, this percentage was 100 per cent. At the mid-level of Retail Leaders, the industry fixture would occupy half of the total category of display space, specifying that PM brands were to be allocated proportionately to PM’s market share (otherwise known as a ‘space-to-sales’ allocation). The other half of category space was to be divided between a ‘prime fixture’, constituting approximately 25 per cent of category space and promoting only PM brands, and a ‘retailer’s choice fixture’, occupying the remaining 25 per cent of the space and containing competing brands and signage.

Several other details of the Retail Leaders program warrant mention. First, PM paid retailers with per unit discounts known as retail display allowances (‘RDAs’). Second, it was undisputed that Retail Leaders contracts were terminable at will without penalty upon 30 days’ notice. Third, under each Retail Leaders level of participation, retailers were never required to grant PM more than ‘space-to-sales’, or a greater percentage of shelf space than its market share.

Several tobacco companies challenged Retail Leaders under both
Sections 1 and 2 of the Sherman Act. The court, after initially issuing a preliminary injunction in favor of the plaintiffs, granted PM’s motion for summary judgment, dismissing the case on the grounds that PM did not have market power, and, alternatively, that the Retail Leaders program did not sufficiently foreclose rivals from the market. Specifically, the court found that Retail Leaders foreclosed only 34 per cent of the market, that plaintiffs successfully competed against PM for premium shelf space and signage and that retailers were able to terminate agreements at will.92

Competition between tobacco manufacturers for valuable shelf space resulted in a boon to consumers as RDAs were passed on in the form of lower prices.93 While anticompetitive foreclosure is a viable concern, the key policy requirement is that the competitive process for distribution is left ‘open’, meaning that rival manufacturers have the opportunity to bid for shelf space. This condition is clearly satisfied where contracts are of short duration and easily terminable like those in the Retail Leaders program.94 In fact, it appears that PM’s prices fell relative to competitors after the implementation of Retail Leaders, suggesting that the program was procompetitive.95

As RJR II illustrates, the duration of exclusive dealing contracts is an important component of modern antitrust analysis. Exclusive dealing contracts covering shares of the market sufficient to otherwise trigger liability under a standard foreclosure analysis are routinely upheld where the contracts involve short-term commitments which allow rivals to compete for distribution.96 RJR II illustrates the standard framework in modern exclusionary distribution cases, which requires a demonstration of the defendant’s market power, substantial foreclosure, contracts of sufficient duration to prohibit meaningful competitive bidding by rivals and an analysis of actual or likely competitive effects.

B Economic analysis of exclusive dealing
The primary anticompetitive concern with exclusive dealing contracts is that a monopolist might be able to utilize exclusivity to fortify its market position and ultimately harm consumers. As a general matter, these concerns also extend to other contracts, such as loyalty and market-share discounts, which we discuss separately in Section III.C.

1 Theories of competitive harm
The most common scenario of antitrust relevance involving exclusive dealing contracts concerns an upstream supplier, S, entering into an exclusive dealing contract with retailers, R, who in turn sell the product to final consumers. The potentially anticompetitive motivation associated with exclusive dealing contracts is clearly related to the limitation placed by that contract on R’s ability to sell rival products
Tying arrangements and exclusive dealing

The possibility of anticompetitive exclusion occurring from these types of contracts generally arises only if S is able to foreclose rival suppliers from a large enough fraction of the market to deprive those rivals of the opportunity to achieve minimum efficient scale.

The well-known critique of this line of reasoning comes from the Chicago School argument that R will not have the incentive to agree to contracts that facilitate monopolization upstream because they will then suffer the consequences of facing that monopolist in their chain of distribution. As a general matter, one can think of this criticism as drawing the analogy to a conspiracy among retailers, R, organized by the monopolist S to exclude S’s rivals from access to distribution. Like any other conspiracy, it is generally the case that each R has the incentive to deviate and remain outside the agreement by contracting with S’s rivals and expanding output at the expense of rival retailers. In other words, retailers have the incentive to avoid entering agreements that will ultimately harm them, and S will generally not be able to compensate retailers enough to enter into the anticompetitive exclusive contract. The critique goes on to argue that observed exclusive dealing contracts must generate efficiencies rather than anticompetitive effects.

The economics literature has grown in recent years to include a series of theoretical models contemplating scenarios where S can sufficiently compensate retailers to join and remain within the conspiracy and therefore accomplish an anticompetitive purpose. These anticompetitive theories of exclusive dealing generally assume that S supplies a product that is essential to R’s viability and that there are substantial economies of scale in manufacturing.

One such theory considers the case where the monopolist S adopts exclusive contracts rather than merely collecting its monopoly profit from the sale of the essential product and relies on the existence of dynamic economies of scale such as network effects. Under this dynamic theory of exclusion, S’s exclusive contracts prevent S’s rivals or potential entrants from developing into future rivals, in order to protect future market power. Because S’s rivals must operate at a cost disadvantage that drives them out and prevents entry, S is able to increase the duration and scope of its market power.

A second set of models explores the possibility that coordination problems between buyers prevent the foiling of S’s anticompetitive use of exclusive dealing contracts. There is a substantial industrial organization literature analyzing the conditions under which these types of coordination problems between buyers generate the possibility of anticompetitive exclusion. The seminal article of this type is by Rasmusson, Ramseyer, and Wiley (‘RRW’), later refined by Segal and Whinston (‘SW’).
unifying economic logic of these models is that the potential entrant (or current rival) must attract a sufficient mass of retailers to cover its fixed costs of entry, but S’s exclusive contracts with retailers prevent the potential entrant from doing so. It is then necessary to work out the conditions under which such exclusion is either not possible, possible, or probable.

A number of factors, in addition to the degree of downstream retail competition, have been identified in the exclusive dealing literature as either favoring the theoretical possibility of exclusion or rendering it less likely or impossible. Significant economies of scale in distribution militate against exclusion because, in that case, a potential entrant may need to attract only a single buyer in order to achieve minimum efficient scale. Similar logic suggests that a small number of buyers will be able to coordinate in order to support the excluded rival. Further, the exclusionary equilibrium in this model appears relatively fragile because an alternative equilibrium in which buyers reject exclusivity also exists.106

Recent extensions of these models focusing on the case where buyers are competitive downstream retailers rather than final consumers have produced a wide range of conflicting results under various conditions.107 Fumagalli and Motta consider the role of retail competition in the RRW–SW framework and demonstrate that the incentives to exclude can disappear in this setting as one buyer becomes large enough to support the entry or viability of a rival.108 Simpson and Wickelgren derive a model that produces the opposite result, arguing that downstream competition enhances the incentive to exclude as the benefits to a single buyer of resisting exclusion are minimal if all retailers are equally disadvantaged because retail competition will allow retailers to pass those costs on to consumers.109

The development of this literature has increased our knowledge about the potential theoretical impact of exclusive dealing contracts. However, the models generating anticompetitive exclusion generally rely on strict assumptions concerning the existence of significant economies of scale, barriers to entry, the nature of both upstream and downstream competition and, importantly, the complete absence of efficiency justifications for the contracts. Where the necessary conditions of those models are satisfied, they demonstrate that exclusive dealing contracts may harm consumers and thus are an appropriate subject for antitrust scrutiny and further analysis.

2 Procompetitive efficiencies

Exclusive dealing arrangements are often efficient and result from the normal competitive process. Exclusive dealing contracts are often observed between firms lacking any meaningful market power, implying that there must be efficiency justifications for the
practice. Indeed, the economics literature is replete with procompetitive explanations for exclusives and partial exclusives.\footnote{110}

The standard procompetitive account of exclusive dealing contracts involves use of exclusive dealing contracts to prevent free-riding dealers from using manufacturer-supplied investments to promote rival products.\footnote{111} For example, a manufacturer may make investments, such as purchasing display fixtures or training salespeople. Dealer free-riding on these investments involves using these investments to promote rival brands. The classic example of this type of free-riding in the antitrust context is \textit{Ryko Manufacturing Co. v. Eden Services},\footnote{112} where a manufacturer of car wash equipment used exclusive territories and exclusive dealing contracts to prevent its dealers from switching consumers to other brands. By facilitating dealer performance, the exclusive dealing contract allows manufacturers to collect a return on their investments and increase output.

A recent article by Benjamin Klein and Andres Lerner expands our understanding of the use of exclusive dealing by demonstrating how exclusivity minimizes free-riding in two cases where there are no manufacturer-supplied investments: first, free-riding on manufacturer-financed promotion to sell rival products, and second, free-riding in the form of failing to supply the promotion paid for by the manufacturer altogether, even in the absence of dealer switching.\footnote{113} First, because manufacturers often compensate retailers for the provision of promotional services such as premium shelf space,\footnote{114} dealers have incentives to use these additional promotional efforts to switch consumers to other products upon which the dealer earns a greater profit. Exclusive dealing can be used to prevent this type of free-riding in an analytically identical manner to the way it prevents free-riding on manufacturer-supplied investments.\footnote{115} The second type of free-riding examined by Klein and Lerner also involves manufacturer-financed promotion. Because dealers are being compensated for promotional effort on the basis of total sales (both marginal and infra-marginal), and non-performance is costly to detect, dealers have an incentive not to supply the agreed upon promotional inputs.\footnote{116} Exclusive dealing mitigates the incentive to free-ride in this way by increasing the dealer’s incentive to promote the manufacturer’s product. Courts have recognized this somewhat intuitive justification for the use of exclusive dealing in \textit{Joyce Beverages}\footnote{117} and \textit{Roland Machinery}, noting the incentive effects of ‘dedicated’ or ‘loyal’ distribution.\footnote{118} Klein and Lerner provide an economic basis for understanding the mechanism by which dealers more actively promote the manufacturer’s product in this case and consider whether \textit{Dentsply}’s ‘dealer loyalty’ justification for its use of exclusive dealing was improperly rejected.\footnote{119}

Outside the expanded analysis of dealer free-riding, there are other
efficient uses of exclusive dealing. One such use involves the role of exclusive dealing by individual retailers, including those without any market power, to intensify competition by manufacturers for their business and to improve purchase terms. By offering manufacturers access to the retailer’s loyal customer base, a retailer is able to commit a substantial fraction of its customers’ purchases to the ‘favored’ supplier and thereby dramatically increase each supplier’s perceived elasticity of demand by making rival products highly substitutable. Wright extends this analysis to explain the use of category management contracts where the particular quantity and type of shelf space devoted to the manufacturer’s products is not contractually set by the retailer, but is flexibly determined over time by the category captain, a firm selected by the retailer to assist and influence decisions concerning which products in a product category are stocked, as well as how they are displayed, promoted, and priced. In contrast to the case where the optimal shelf space commitments are stable, well known, easily specified by contract, and non-performance is easily detected by the manufacturer, category management contracts offer increased flexibility where such commitments are imprecise and change over time.

3 Empirical evidence As discussed, the theoretical literature focuses on the question of whether exclusive dealing contracts limit competition or are a procompetitive element of the competitive contracting process designed to solve incentive conflicts between manufacturers and retailers over the supply of promotional services. If the anticompetitive theories are correct, one expects that exclusive dealing contracts will increase prices and decrease output. Conversely, if the procompetitive theories are correct, prices should decrease and output should increase. Thus, conflicting theories generate conflicting predictions regarding the competitive effects of exclusive dealing on output and consumer welfare.

Existing empirical evidence of the impact of exclusive dealing is scarce but generally favors the view that exclusive dealing is output-enhancing. Heide et al. conducted a survey of managers responsible for distribution decisions and found that the incidence of exclusive dealing was correlated with the presence of ‘free-ridable’ investments. Both Asker and Sass separately examine the welfare consequences of exclusive dealing in the beer market by observing the effect of exclusive dealing on total market output, as well as the output and prices of rival distributors, concluding that exclusive dealing is output increasing and does not generate foreclosure.

C Loyalty discounts Loyalty discounts are a form of non-linear pricing in which the buyer’s discount increases after a buyer-specific minimum threshold requirement
is satisfied. One such discount is known as an ‘all units’ discount which applies the per unit rebate to all units purchased by the buyer if, and only if, it satisfies the threshold. A similar form of rebate is a ‘market-share discount’, which requires a buyer to make a specified share of its purchases from the seller in order to qualify for the discount. The relationship between loyalty discounts and exclusive dealing contracts is relatively straightforward, as the latter involves the special case where the discounts are granted if and only if the threshold commitment requires the buyer to make 100 per cent of its purchases from the supplier. We will refer to these loyalty rebate programs, such as market share discounts and all-units discounts that require less than full exclusivity, as ‘partial exclusives’ and reserve use of ‘full exclusive’ to specify 100 per cent exclusivity.

Loyalty discounts and ‘partial exclusives’ have generated a substantial amount of antitrust scrutiny in recent history, particularly after the LePage’s decision, which involved a multi-market or ‘bundled discount’. In this Section, we will focus on single-product loyalty discounts alleged to have exclusionary effects similar to exclusive dealing. Single product partial exclusives have been involved in a number of recent antitrust cases, including FTC v. McCormick, RJR II, Barry Wright, Concord Boat, and Brooke Group.

In each of these cases, the supplier offered dealers ‘loyalty discounts’ in the form of partial exclusives. Many of these rebates were ‘all units discounts’, meaning that they were applied to all of the dealer’s purchases once the minimum threshold was satisfied, including those in Barry Wright and Concord Boat, and possibly the discounts at issue in Brooke Group. The partial exclusives in McCormick and RJR II likely did not involve an ‘all units’ feature, but offered increased discounts upon the commitment of a specific share of shelf space to the supplier’s product. For example, in McCormick, which ultimately resulted in a settlement, the complaint alleged that the slotting contracts, manufacturer payments to retailers for preferred shelf space, included provisions that ‘typically demand that the customer allocate the large majority of the space devoted to spice products – in some cases 90% of all shelf space devoted to packaged spices, herbs, seasonings and flavorings of the kinds offered by McCormick – to McCormick’.

McCormick did not offer a procompetitive justification for these contracts, and specifically, the restrictions on distributing rival products. While Philip Morris’ Retail Leaders shelf space arrangements contracts survived R.J. Reynolds’s antitrust challenge in RJR II because the contracts were of short duration and therefore could not sufficiently foreclose rivals’ access to distribution, the court did not find the contracts had any persuasive procompetitive business justification.
While partial exclusives may generate the same type of ‘raising rivals’
costs’ concerns as full exclusives, the important question is whether these
coructs are capable of producing harm to competition. As a general
matter, antitrust analysis of these partial exclusives correctly proceeds by
exploring whether the necessary conditions for competitive harm are satis-
fied, including substantial foreclosure and sufficient duration to prevent
competitive bidding for distribution. Unfortunately, because the procom-
petitive function of partial exclusives is less well understood than that of
full exclusives, courts may be tempted to conclude that partial exclusives
do not have any redeeming efficiencies and more likely to find any potential
anticompetitive effect sufficient to find an antitrust violation.

As discussed above, Klein and Murphy present an analysis of the pro-
competitive use of full and partial exclusives that may explain the preva-
ence of these contracts in retail settings.\textsuperscript{134} Klein and Murphy consider the
role of exclusive dealing and partial exclusives in the setting where consum-
ners choose retailers on the basis of both average retail price and product
variety. In essence, while adopting an exclusive imposes some costs on
consumers in the form of preventing those consumers from satisfying
their preferences for a particular brand, those costs are outweighed by the
increase in consumer welfare generated by the retailer acting as a competi-
tive bargaining agent for its customers, resulting in lower wholesale prices.
This procompetitive justification extends to the case of partial exclusives,
which give the retailer the flexibility to satisfy consumers with a clear prefer-
ence for a rival brand. This avoids a large fraction of the consumer welfare
losses associated with failing to stock a product highly demanded by some
subset of consumers, while still extracting some benefits of the exclusivity
in the form of increased ex ante competition for all consumers. Klein and
Murphy apply this explanation to a number of partial exclusive contracts,
including those in \textit{McCormick}, the category management shelf space con-
tract in \textit{El Agüila Food Products v. Gruma},\textsuperscript{135} and the restrictive promotion
contracts adopted in \textit{Coca-Cola v. Harmar}\textsuperscript{136} and \textit{RJR II}.\textsuperscript{137} Wright applies
this partial exclusive analysis to the case of category management contracts
where the retailer dedicates, without contractual discretion, a significant
portion of its shelf space by allowing the category captain to determine or
influence shelf space allocation and stocking decisions.\textsuperscript{138}

\section*{IV Conclusion}
A large number of antitrust investigations in the United States involve tying,
bundling, and exclusive dealing contracts. These practices have much in
common from the standpoint of economic analysis. For instance, the poten-
tial efficiencies associated with both tying and exclusive dealing, and the
fact that both are prevalent in markets without significant antitrust market
power, lead most commentators to believe that they are generally procompetitive and should be analyzed under some form of rule of reason analysis. Further, the anticompetitive theories applied to both tying and exclusive dealing generally involve ‘raising rivals’ costs’ and the potential for the practice to foreclose rivals or acquire monopoly power in a second market. Despite these similarities, the legal analysis of these two practices remains remarkably divergent with the modified *per se* approach still applied to tying practices and a more sophisticated rule of reason analysis emphasizing potential consumer welfare effects applied to exclusive dealing. While developments in economic theory generally take some time to generate corresponding changes in competition policy, our analysis of these practices suggests that the adoption of a rule of reason for tying and presumptions of legality for both practices under certain conditions may be long overdue.

**Notes**

* A.F. Abbott is Associate Director, Bureau of Competition, Federal Trade Commission; J. D. Wright is Visiting Professor, University of Texas School of Law and Assistant Professor (on leave), George Mason University School of Law. The views expressed here are the authors’ alone and are not necessarily the views of the Federal Trade Commission or any of its members. The authors thank Brandy Wagstaff for research assistance.


2. A ‘requirements tie-in’ sale occurs when a seller requires customers who purchase one product from the seller (e.g., a printer) to make all their purchases of another product from the same seller (e.g., ink cartridges). Such tying allows the seller to charge customers different amounts depending on their product usage. *Id.* at 321–2.

3. *Id.* ‘Pure bundling’ occurs when consumers can purchase only the entire bundle (e.g., when customers are allowed to purchase only a fixed price meal that includes all courses). ‘Mixed bundling’ occurs if the components also are sold separately, with a discount for purchasing the bundle (e.g., restaurant menus that include both à la carte items and complete meals). *See id.* at 324.


5. Business practices merit treatment as *per se* illegal if ‘their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable’. *N. Pac. Ry. Co. v. United States*, 356 US 1, 5 (1958).


8. ABA SECTION OF ANTITRUST LAW, *ANTITRUST LAW DEVELOPMENTS* 177–9 (5th ed. 2002) (hereinafter *ANTITRUST LAW DEVELOPMENTS*).


10. ‘It is far too late in the history of our antitrust jurisprudence to question the proposition that certain tying arrangements pose an unacceptable risk of stifling competition and therefore are unreasonable “*per se*”.’ *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 US 2, 9 (1984).

11. *Id.* at 9–18.
12. *Id.* at 32–47.
17. *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545, 557–8 (E.D. Pa. 1960), *aff’d per curiam*, 365 US 567 (1961) (concluding that a tie was justified for a limited time in a new industry to assure effective functioning of complex equipment); *Mozart Co. v. Mercedes-Benz of N. Am., Inc.*, 833 F.2d 1342, 1348–51 (9th Cir. 1987) (upholding verdict for defendant because the tie may have been found to be the least expensive and most effective means of policing quality); *Dehydrating Process Co. v. A.O. Smith Corp.*, 292 F.2d 653, 655–7 (1st Cir. 1961) (affirming a judgment of a district court that directed a verdict in favor of the defendant because a tie was necessary to assure utility of two products when separate sales led to mislabeling and widespread customer dissatisfaction).
18. *Wells Real Estate, Inc. v. Greater Lowell Bd. of Realtors*, 850 F.2d 803, 815 (1st Cir. 1988) (‘The tying claim must fail absent any proof of anti-competitive effects in the market for the tied product.’); *Fox Motors, Inc. v. Mazda Distribs. (Gulf)*, Inc., 806 F.2d 953, 958 (10th Cir. 1986) (declining to apply the *per se* rule to a tie that ‘simply does not imply a sufficiently great likelihood of anticompetitive effect’).
20. This opinion was put forth in 2002 at the Federal Trade Commission and Department of Justice joint hearings on the intersection between intellectual property and antitrust law (hereinafter *IP-Antitrust Hearings*). Jonathan M. Jacobson & Abid Qureshi, *Did the Per Se Rule on Tying Survive ‘Microsoft’?* (May 14, 2002, *IP-Antitrust Hearings*), http://www.ftc.gov/opp/intellect/020514jacobson2.pdf. See also Herbert Hovenkamp, *IP Ties and Microsoft Rule of Reason*, 47 ANTITRUST BULL. 369, 413 (‘While developing a rule of reason for OS/application is laudable, the court’s rationale for distinguishing such ties from the general run of tying arrangements cannot be supported.’).
22. *Antitrust Law Developments*, supra note 8, at 179 & n.998 (citing cases).
26. *Id.* at 41–3 (noting the blocks contained as many as 754 separate titles); *id.* at 44, 49–50 (treating block booking as tying). More recently, courts have examined bundling in the context of loyalty discounts. *See, e.g.*, *LePage’s, Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003) (en banc) (involving a ‘bundled discount’ offered by 3M on its Scotch brand tape and a variety of other products provided the retailer met a target for purchases of private label tape from 3M as well). The en banc court affirmed the trial court’s denial of judgment for the defendant as a matter of law. *But see* Brief for the United States as Amicus Curiae, *3M Co. v. LePage’s Inc.*, 542 US 953 (2004) (No. 02-1865), denying cert. to 324 F.3d 141, available at http://www.usdoj.gov/atr/cases/f203900/203900.pdf (urging the Supreme Court to deny review but criticizing the Third Circuit’s en banc decision for providing little guidance on how Section 2 should be applied to bundled rebates, failing to explain why 3M’s conduct was unlawful, and perhaps encouraging challenges to – and therefore chilling the adoption of – procompetitive bundled rebate programs); *see also* Ortho Diagnostic Sys., Inc. *v. Abbott Labs., Inc.*, 920 F. Supp. 455 (S.D.N.Y. 1996) (finding ‘package price’ discounts that covered both competitive markets and markets in which defendant had a monopoly did not violate Section 2, because plaintiff did not show that either (1) defendant priced below its average variable cost, or (2) plaintiff was at least as efficient a producer as defendant in competitive product lines, but defendant’s pricing made it unprofitable for plaintiff to continue to compete).


28. 324 F.3d 141 (3d Cir. 2003) (en banc).


31. *Id.* at 99. Antitrust Modernization Committee Commissioner Dennis Carlton expressed concern that the first prong of the proposed ‘AMC’ test would fail to protect procompetitive bundling because common pricing strategies involving price discrimination, such as bundling razors and razor blades, would satisfy the first prong of the test but not threaten competitive injury. *See separate Statement of Dennis Carlton, id.* at 398-9. Recently, the Ninth Circuit endorsed a modified version of the AMC test which embraced the first prong only but reasoned that the recoupment requirement and proof of an anticompetitive effect were either inappropriate in the bundling context or unnecessary. *See Cascade Health Solutions v. PeaceHealth*, 2007 US App. LEXIS 21075 (9th Cir. 2007).


33. *Id.* § 5.3 & n.34 (citing *United States v. Paramount Pictures, Inc.*, 334 US 131, 156-8 (1948) (copyrights); *Int’l Salt Co. v. United States*, 332 US 392 (1947) (patent and related product)).

34. *Id.* § 5.3; *see infra* notes 58-67 and accompanying text (discussion of efficiencies).

35. Antitrust-IP GUIDELINES § 5.3 (footnotes omitted); *see also* *id.* § 2.2 (‘[The] Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner.’).

36. The Antitrust-IP GUIDELINES describe package licensing as ‘the licensing of multiple items of intellectual property in a single license or in a group of related licenses’, which ‘may be a form of tying . . . if the licensing of one product is conditioned upon the acceptance of a license for another, separate product’. *Id.* § 5.3.

37. This conclusion is supported not only by the tone of the Supreme Court’s decision in *Illinois Tool*, see text accompanying notes 14-15, *supra*, but by the Court’s willingness (in light of economic analysis) to jettison the 95-year-old per se prohibition on minimum resale price maintenance in its 2007 *Leegin* holding. *See Leegin Creative Prods, Inc. v. PSKS, Inc.*, 127 S. Ct. 2705 (2007).


41. Id. at 199.


46. For example, if (contrary to fact) a monopolist in DVD players (the tying product) committed to sell both its DVD player and a CD player (the tied product) only as a bundle for $300, a customer willing to pay $250 for a DVD player would obtain the CD player for $50, because the consumer already was willing to pay $250 for the DVD player. Thus, the commitment to bundle would set an implicit low price for the tied product, the CD player.

47. Whinston, supra note 43, at 839.

48. Id. Although originally presented in the context of goods with independent demand, this analysis can also apply to complements.

49. Id. at 855–6.

50. See Carlton & Waldman, supra note 45.

51. See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34, 60 (D.C. Cir. 2001) (‘Microsoft’s effort to gain market share in one market (browsers) served to meet the threat to Microsoft’s monopoly in another market (operating systems) by keeping rival browsers from gaining the critical mass of users necessary to attract developer attention away from Windows as the platform for software development.’).


53. Id. at 4.

54. Id.

55. Id. at 26.

56. Barry J. Nalebuff, *Competing Against Bundles, in INCENTIVES, ORGANIZATION & PUBLIC ECONOMICS: PAPERS IN HONOR OF SIR JAMES MIRRLEES* 323, 324 (Peter Hammond & Garth Mayles eds, 2000) (hereinafter Nalebuff, *Competing Against Bundles*). The point also holds true for tying. Tying and bundling differ in that ‘bundling’ refers to cases in which the tying and tied products are sold in fixed proportions, whereas ‘tying’
Tying arrangements and exclusive dealing

has traditionally referred to cases in which consumers choose the quantity of the tied product they purchase. See Carlton & Perloff, supra note 1, at 319. Thus, a producer can use tying to meter usage of the tying product so as to price discriminate among consumers according to their purchases of the tied product. For example, printers for personal computers often involve a technological tie between the printer and the type of ink cartridge the printer can use. Consumers who do more printing thus pay more to the producer overall than those who print less. Such a tie, however, can result in lower printer prices for consumers. Id. at 321.

See id. at 83 (‘Tying is common in competitive markets. It results in lower costs for producers – which get passed onto consumers – or greater convenience, which benefits consumers directly.’). Even a monopolist will pass through to consumers a significant share of the cost savings from bundling. Paul Yde & Michael Vita, Merger Efficiencies: The ‘Passing-On’ Fallacy, Antitrust, Summer 2006, at 59 (‘A monopolist that failed to expand output and reduce price in response to a cost reduction would be no less irrational than a monopolist that failed to exercise its market power.’).

The authors note that offering both a bundle and each component separately can involve additional fixed costs. When these fixed costs are sufficiently large, a firm may choose not to bundle and instead to offer only individual components, or may choose only to bundle and not to offer any component separately. Id. at 65.


Bakos & Brynjolfsson (2000), supra note 65, at 71–4 (showing that customers are able to purchase goods from competing firms selling large enough bundles at a lower effective per unit price than the price they would pay for each good if all goods are sold separately).

Id. at 72. The intuition behind this result is that bundling allows the monopolist to sell more units to customers which increases total welfare, but also allows the monopolist to charge higher average prices which extracts surplus from customers. Depending on the parameters of the model, the latter effect could be either greater or less than the former effect.

Id. at 84.


Whinston, supra note 43, at 856.


73. See id.
74. Louis Kaplow and Carl Shapiro, *Antitrust*, in *The Handbook of Law and Economics* (A. Mitchell Polinsky & Steven Shavell eds, Elsevier 2007), adopt a similar definition and provide a survey of the exclusive dealing literature discussed throughout this article. The leading antitrust treatise adopts a similar definition, *Philip E. Areeda & Herbert Hovenkamp, Antitrust Law* ¶ 1800a (2d ed. 2002) (‘an exclusive dealing arrangement is a contract between a manufacturer and a buyer forbidding the buyer from purchasing the contracted good from any other seller, or requiring the buyer to take all of its needs in the contracted good from the manufacturer’).
77. 258 US 346 (1922).
78. 258 US 451 (1922).
82. 365 US at 328.
83. *Id.* at 330–1, 333.
84. *Id.* at 362.
86. *Areeda & Hovenkamp, supra note 74*, at ¶ 1821.
88. 199 F. Supp. 2d at 370.
89. *Id.* at 369–70.
90. *Id.* at 371.
91. *Id.* at 370.
92. *Id.* at 391 (‘because Retail Leaders agreements are terminable at will with thirty days notice, retail product and display space are subject to uninterrupted competitive bidding, and Plaintiffs are not substantially foreclosed from the relevant market’).
93. R.J. Reynolds’s economic expert conceded this point during the litigation. 199 F. Supp. 2d at 369–70. The fact that PM made significant promotional payments is consistent with the very high margins on tobacco products, giving tobacco manufacturers the incentive to pay for premium shelf space and signage that might induce incremental sales. For an economic analysis providing a procompetitive basis for understanding shelf space payments, see Benjamin Klein and Joshua D. Wright, *The Economics of Slotting Contracts*, 50 J.L. & Econ. 421 (2007).
94. The court made exactly such a finding. 199 F. Supp. 2d at 391. Whether short-term agreements do not have substantial anticompetitive effects as a matter of law is an open issue subject to debate across the circuits. See cases cited infra note 96.
95. See Peter Bronsteen et al., *Price Competition and Slotting Allowances*, 50 Antitrust Bull. 267 (2005).
96. A number of courts have held that exclusive contracts of one year or less are
presumptively lawful. See, e.g., Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039, 1059 (8th Cir. 2000); CDC Techs., Inc. IDEXX Labs, Inc., 186 F.3d 74 (2d Cir. 1999); Omega Envtl. Inc. v. Gilbarco, Inc., 127 F.3d 1157, 1163–4 (9th Cir. 1997); Paddock Publications, Inc. v. Chicago Tribune Co., 103 F.3d 42, 47 (7th Cir. 1996); Thompson Everett, Inc. v. Nat’l Cable Adver., 57 F.3d 1317, 1325 (4th Cir. 1995); (‘the FTC and the Supreme Court concluded that even exclusive dealing contracts are lawful if limited to one year’s duration’); US Healthcare, Inc. v. Healthsource, Inc., 986 F.2d 589, 596 (1st Cir. 1993); Roland Mach. Co. v. Dresser Indus., 749 F.2d 380, 392–5 (7th Cir. 1984). Similarly, some commentators have argued in favor of per se legality for such short-term contracts. See, e.g., Wright, supra note 87.


98. This line of reasoning is conventionally associated with Robert Bork. See, e.g., ROBERT A. BORK, THE ANTITRUST PARADOX 309 (1978) (‘A seller who wants exclusivity must give the buyer something for it. If he gives a lower price, the reason must be that the seller expects the arrangement to create efficiencies that justify the lower price. If he were to give a lower price simply to harm his rivals, he would be engaging in deliberate predation by price cutting, and that, as we have seen in Chapter 7, would be foolish and self-defeating behavior on his part’).

99. This analogy is explored and used to derive the economic conditions necessary for exclusive contracts to cause anticompetitive effects, in Benjamin Klein, supra note 81, at 122–8.


101. Douglas Bernheim and Michael Whinston, Exclusive Dealing, 106 J. POL. ECON. 64 (1998), formally derive this result.

102. See Carlton & Waldman, supra note 45.

103. An alternative, but related, theory of exclusion operates by driving out competing retailers and allowing S to monopolize distribution and collect its monopoly price on the distribution of rival products. See Whinston, supra note 43. This alternative theory also requires substantial economies of scope or scale in the supply of distribution services. Economies of scope in distribution may be present if, for example, S’s product is essential to the economic viability of R.


106. But see Segal & Whinston, supra note 105, and Michael D. Whinston, LECTURES ON ANTITRUST ECONOMICS (MIT Press, 2006), for arguments that the ability to make discriminatory or sequential offers to buyers increases the support for exclusion.

107. See, e.g., Chiara Fumagalli & Massimo Motta, Exclusive Dealing and Entry. When Buyers Compete, 96 AM. ECON. REV. 785 (2006) (exclusion is not likely with downstream retail competition where potential entrant can achieve scale through distribution with a small number of retailers); John Simpson & Abraham L. Wickelgren, Naked Exclusion, Efficient Breach, and Downstream Competition, 97 AM. ECON. REV. 1305–20 (2007) (exclusion is possible with downstream retail competition because each individual retailer has little to gain from holding out from the exclusive and the increased benefits of upstream competition are largely passed on to final consumers); John Simpson & Abraham L. Wickelgren, Exclusive Dealing and Entry. When Buyers Compete: Comment (mimeo, June 2005) (same).

108. Fumagalli & Motta, supra note 107.

A description of other commonly accepted justifications for exclusive dealing is presented in Jacobson, supra note 76, at 357–60.


Klein & Lerner, supra note 112.

*See Klein and Wright, supra note 93, which extends the original analysis of inadequate dealer incentives to promote and the use of vertical restraints in solving this dealer incentive problem in Benjamin Klein and Kevin M. Murphy, *Vertical Restraints as Contract Enforcement Mechanisms*, 31 J.L. & ECON. 265 (1988).*


Id. at 502–4.

*Joyce Beverages v. Royal Crown Co.*, 555 F. Supp. 271, 276–7 (S.D.N.Y. 1983). *See also* Hendricks Music Co. v. Steinway, Inc., 689 F. Supp. 1501 (N.D. Ill. 1988) *(‘it is perfectly legitimate and, in fact, procompetitive, for manufacturers to insist that their dealers devote undivided loyalty to their products and not use those of their competitors’).*


Klein & Lerner, supra note 112, at 507–18. *See generally United States v. Dentsply Int’l, Inc.*, 277 F. Supp. 2d 387 (D. Del. 2003), rev’d, 399 F.3d 181 (3d Cir. 2005), cert. denied, 126 S. Ct. 1023 (2006). Klein and Lerner conclude that creating ‘undivided dealer loyalty’ was a plausible justification in *Dentsply*, but that ‘we do not know if a more complete analysis would have found the net effect of Dentsply’s exclusive dealing to be procompetitive or anticompetitive’ and ‘what is clear is that further analysis of the undivided loyalty rationale for exclusive dealing should have been undertaken’, Klein & Lerner, supra note 112, at 518.

*See Benjamin Klein & Kevin M. Murphy, *Exclusive Dealing Intensifies Competition for Distribution*, 25 ANTITRUST L.J. 433 (2008).* This explanation is related to, and provides the economic basis for, the argument that exclusives ‘instigated’ by customers should enjoy a presumption of legality. *See Richard M. Steuer, *Customer Instigated Exclusive Dealing*, 68 ANTITRUST L.J. 239 (2000).*


The reader is referred to Kobayashi, supra note 124, at 137–46, for discussion of multi-product discounts.

*See, e.g.*, Tom, Balto & Averitt, supra note 75 (analyzing market share discounts as a form of de facto exclusive dealing).


*Barry Wright v. ITT Grinnell*, 724 F.2d 227 (1st Cir. 1983).

*Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039 (8th Cir. 2000).


*See Kobayashi, supra note 124, at Figure 1.*
Tying arrangements and exclusive dealing


134. Klein & Murphy, *supra* note 120.


138. See Wright, *supra* note 121.

References


Cases

Barry Wright v. ITT Grinnell, 724 F.2d 227 (1st Cir. 1983).
Cascade Health Solutions v. PeaceHealth, 2007 US App. LEXIS 21075 (9th Cir. 2007).
CDC Techs., Inc. IDEXX Labs, Inc., 186 F.3d 74 (2d Cir. 1999).
Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039 (8th Cir. 2000).
El Aguila Food Prods. v. Gruma Corp., 301 F. Supp. 2d 612 (S.D. Tex. 2003), aff’d, 131 F. App’x 450 (5th Cir. 2005).
Fox Motors, Inc. v. Mazda Distrib. (Gulf), Inc., 806 F.2d 953 (10th Cir. 1986).
LePage’s, Inc. v. 3M, 324 F.3d 141 (3d Cir. 2003).
Mozart Co. v. Mercedes-Benz of N. Am., Inc., 833 F.2d 1342 (9th Cir. 1987).
Omega Envl. Inc. v. Gilbarco, Inc., 127 F.3d 1157 (9th Cir. 1997).
Paddock Publ’ns., Inc. v. Chicago Tribune Co., 103 F.3d 42 (7th Cir. 1996).
Wells Real Estate, Inc. v. Greater Lowell Bd. of Realtors, 850 F.2d 803 (1st Cir. 1988).