

# UC Berkeley

## Recent Work

### Title

Freedom to Trade and the Competitive Process

### Permalink

<https://escholarship.org/uc/item/5gx9n3tf>

### Authors

Edlin, Aaron  
Jennings, Richard  
Farrell, Joseph

### Publication Date

2011-02-01

Peer reviewed

## **Freedom to Trade and the Competitive Process**

Aaron Edlin  
Richard Jennings Professor  
Department of Economics and School of Law  
UC Berkeley

Research Associate  
National Bureau of Economic Research

and

Joseph Farrell\*  
Professor of Economics, UC Berkeley

December, 2010  
This version: February 2011

### **Abstract**

Although antitrust courts sometimes stress the competitive process, they have not deeply explored what that process is. Inspired by the theory of the core, we explore the idea that the competitive process is the process of sellers and buyers forming improving coalitions. Much of antitrust can be seen as prohibiting firms' attempts to restrain improving trade between their rivals and customers. In this way, antitrust protects firms' and customers' freedom to trade to their mutual betterment.

\*This paper has been long in gestation, but at the time of its release Professor Farrell is on leave serving as Director of the Bureau of Economics, Federal Trade Commission. The opinions in this paper are those of the authors as individuals and are not intended to represent those of the Federal Trade Commission or any Commissioner. We thank David Gilo, Fred Kahn, Louis Kaplow, Douglas Melamed, Ariel Porat, Ed Rock, Carl Shapiro and seminar participants at Tel Aviv University for helpful comments.

[B]y the omission of any direct prohibition against monopoly in the concrete [the Sherman Act] indicates a consciousness that **the freedom of the individual right to contract** when not unduly or improperly exercised was the most efficient means for the prevention of monopoly...

[T]he **right to freely contract** was the means by which monopoly would be inevitably prevented ...

Justice White in *Standard Oil* (1911),<sup>1</sup> emphases added.

The freedom to switch suppliers lies close to the heart of the competitive process that the antitrust laws seek to encourage.

Justice Breyer in *Discon* (1998)<sup>2</sup>.

Antitrust analysis considers both process and outcomes. That is, it asks both whether an activity or agreement interferes with the competitive process and whether it leads to outcomes that are inefficient and/or injure consumers. The mix of these two strands of analysis varies. For example, horizontal merger analysis is almost entirely outcome-focused, while cartel enforcement scarcely addresses outcomes at all; form-based and effects-based analyses continue to contest other areas of antitrust.

Recent decades have seen increasing weight placed on direct analysis of outcomes. Some commentators even suggest that whether an act is anticompetitive turns by definition on whether its outcome will be bad. Courts, on the other hand, still frequently stress the competitive process, even when they may not be particularly clear about what that process is. .

We take a step toward understanding what the competitive process entails, because we side with the courts in thinking that an analysis of impacts on the competitive process should remain central to antitrust.

A very intuitive and robust benefit of competition is that if firm A is greedy or incompetent, consumers can trade with firm B instead. Firm A would of course love to thwart the formation of this improving coalition, and might sometimes be able to do so, as we illustrate below. These observations suggest a perspective that the competitive process is *the process of sellers and buyers forming improving coalitions*.

We explore below the idea that the competitive process centrally involves the freedom to strike better deals. From this perspective much—though by no means all—of antitrust can be seen as prohibiting firms’ attempts to *restrain or thwart* improving *trade* between their rivals and customers, echoing the Sherman Act’s ban on agreements in “restraint of trade.” In this way antitrust protects B’s and consumers’ *freedom to trade* to their mutual betterment.<sup>3</sup>

We also illustrate how some antitrust controversies arise when firm A itself is an essential participant in the improving coalition.

---

<sup>1</sup> *Standard Oil v. United States* 221 U.S. 1 (1911).

<sup>2</sup> *NYNEX v. Discon* 525 U.S. 128, 137 (1998).

<sup>3</sup> Antitrust prohibits certain things (all statutes do), but it is a shallow paradox to observe that laws protecting freedom can take the form of prohibitions. (For instance, laws against kidnapping prohibit certain conduct but clearly protect freedom.)

## 1. Outcomes, Process, and the Core

An entirely outcome-focused view would *define* restraints of trade as practices or agreements that lower economic (consumer or total) surplus, perhaps measured by quantity traded, in a market. Some mainstream antitrust commentary might approach this view. Posner [2001, p.22] views the “completed act” of violating section 1 as “an actual restriction of output,” while Posner [1976, p. 53] argues that “antitrust policy is to be shaped by the monopoly problem” after explaining that monopolies lower output and raise price, relative to the perfectly competitive level or the level that would otherwise obtain. Similarly, Hovenkamp (2006, ch. 1) frames his “legal and economic structure” using outcome measures. Bork [1978, p. 51] states that “[t]he only legitimate goal of American antitrust law is the maximization of consumer welfare.”<sup>4</sup>

The freedom-to-trade perspective, in contrast, stresses the freedom of buyers and sellers to change their trading partners whenever that is mutually beneficial. The aspect of the competitive process that we study here is buyers and sellers exercising this freedom and forming improving coalitions (i.e., new configurations of trading partners).

In a highly competitive market a seller who does not give its customers good deals will find that rivals offer better deals to attract these customers. The process of firms fighting over customers and offering them better and better deals raises consumers’ utility skyward. This competitive process is closely aligned with what Schumpeter called creative destruction.

Until the outcome reaches what economists call the core, an improving coalition of buyers and sellers is always possible and the competitive process will continue. In fact the core is defined as the set of outcomes or payoffs from which no coalition of people improve their payoffs by simply trading among the coalition.

Because it is framed in terms of payoffs and is flexible as to institutions and modes of trading, the core is more meaningful than perfectly competitive equilibrium in a broad range of markets of interest to antitrust. As Edgeworth (1881: p. 31) wrote,

*“[the core] is attained when the existing contracts can neither be varied without recontract with the consent of the existing parties, nor by recontract within the field of competition. The advantage of this general method is that it is applicable to the particular cases of imperfect competition; where the conceptions of demand and supply at a price are no longer appropriate.”*

Outcomes in the core are efficient, making the core a reasonable ideal to pursue if we judge by outcomes.<sup>5</sup>

---

<sup>4</sup> By consumer welfare Bork means (confusingly) what is more often called total welfare; but our point here is that he asserts that antitrust is outcome-focused.

<sup>5</sup> However, the proof that outcomes in the core are (Pareto) efficient relies on the prospect of forming the “grand” improving coalition containing everyone in the

Traditionally, antitrust commentators think of the outcome ideal or benchmark as the perfectly competitive equilibrium in which firms are price takers; this naturally inspires them to focus on acquisitions and maintenance of market power (i.e., power over price) as a problematic outcome, but does not provide much guidance of what process (i.e., what kinds of acquisitions or maintenance) are anticompetitive and should be condemned. Grinnell famously and unhelpfully identifies “willful acquisition” as its process prong.<sup>6</sup> On the other hand, if the outcome ideal is the core, as we consider here, then the process focus shifts to a search for whatever restrains, thwarts or blocks the formation of improving coalitions; this provides meaningful guidance of what constitutes a process violation.

Perversely (to our minds) most discussion of the core in antitrust appears to have fretted that, with large fixed costs, the core might be empty, so that the competitive process will never reach closure and assumed that the resulting creative destruction must be worse than a non-competitive “equilibrium.”<sup>7</sup>

## 2. Freedom to Trade and Horizontal Agreements under Section 1

To illustrate this view of the competitive process as freedom to trade, suppose that suppliers A and B collude and agree to charge a high price H. If their contract were legally binding, it would prohibit either from trading with a buyer at a lower price  $L < H$ .<sup>8</sup> In the case of a buyer who pays H to buy from A, the contract thwarts the {B, buyer} coalition that would otherwise improve on the status quo for its members. The contract thus restrains the freedom of B and the buyer to trade.

Typically, of course, a cartel does not contemplate court enforcement; rather, A indicates that if B attracts buyers by offering a better deal, A will punish B. This threat discourages the otherwise improving coalition. B is not entirely “free” to cut price so as to trade with the buyer, because A will punish him for doing so. Thus viewing competition as centrally involving freedom to trade shows how cartels are a core violation of Section 1, which may “explain” the per se treatment of cartels in a more fundamental way than the courts’ mantra that “experience” shows that they almost always lead to bad outcomes.

Readers may ask why {A,B} isn’t an improving coalition relative to the competitive outcome: why doesn’t our interpretation of antitrust as freedom to trade fatally include freedom to collude? In the language of the core, {A,B} is not an improving coalition because a coalition with only sellers yields no surplus: worthwhile

---

economy. If such coalitions are very hard to form, it becomes an appealing hypothesis rather than a theorem that the formation of improving coalitions tends toward efficiency.

<sup>6</sup> United States v. Grinnell Corp. 384 U.S. 563 (1966).

<sup>7</sup> See generally Telser (1978); Sjostrom (1989) argues that the core may be empty in ocean shipping and asserts that this would justify cartels.

<sup>8</sup> Even if A and B are bound to their collusion by honor alone, an agreement not to deal with one another’s customers restrains trade and discourages each from forming an improving coalition with the other’s customers.

coalitions include the trading partners. And {A, B, customers} with trade at H does not “improve on” the competitive outcome because customers are worse off.<sup>9</sup>

*Maricopa* may illustrate the view that restraining rivals’ trade is illegal even in the face of a natural intuition that the effects might not be bad. The Court decided it was per se illegal for doctors to agree on maximum prices—that is, to agree not to charge *more* than certain prices. In an outcome-focused approach, the Court’s per se condemnation would be puzzling. After all, maximum prices would seem likely to expand output (if doctors have market power or information rents), suggesting at least a need for more analysis. On the other hand, the doctors were nakedly restraining one another’s freedom to trade; for instance, each doctor was agreeing not to compete away business from the others by offering very high quality service at high prices. A freedom-to-trade approach appears to better explain the result in *Maricopa* than an outcome approach.

However, we do not suggest that outcomes can be ignored. To do so might risk returning antitrust to pre-*Chicago Board* paradoxes such as whether all contracts are illegal restraints or whether all trade restrains other trade. In *ASCAP* and *BMI*, the Court declined to apply the per se rule.<sup>10</sup> Although the case literally involved fixing a price for the blanket license, each copyright holder remained free to trade on his own with a licensee.<sup>11</sup> One could thus analyze the case by saying that the blanket licenses did not limit anyone’s freedom to trade. Alternatively, if one did view collective pricing of the blanket license as limiting freedom to trade, a court might allow the limitation if efficiencies are sufficiently compelling.

In *Engineers*, engineers agreed not to quote a price until a customer had engaged a particular engineer. They argued that without this restriction, customers would choose low bidders, engineers would cut corners, and bridges would fall down. That defense goes to efficiencies, not to whether the horizontal agreement limits freedom to trade. A court might concern itself exclusively with the competitive process, and strike down the agreement; or it might evaluate the efficiency defense. The Court took a confusing path somewhere in between. It points out that consumers can trade off quality against price, potentially the germ of a real efficiency analysis, but did not engage with an implied efficiency theory involving consumer irrationality. The short shrift given to the engineers’ defense is more compatible with a focus on restraints of the competitive process than with a focus on outcomes.

Illustrating some of these tensions and interweavings of process and outcome, consider an art dealer D who agrees to sell a painting to buyer A in a week for \$500, but leaves it hanging in his gallery. Buyer B arrives mid-week and offers \$750 for the painting. The forward contract between D and A prevents D from selling to B at the higher price. Does it “restrain” the freedom of B and D to trade to their mutual benefit and thwart an improving coalition {D, B}?

Had D and A entered a spot contract instead of a forward one, and had A taken the painting home with him, then when B arrived, D would plainly have no painting, so {D,B} would not be an improving coalition (let alone one that is thwarted). Inspired by

---

<sup>9</sup> In principle one should specify the terms on which members of a coalition trade; in some cases we take the liberty of leaving that implicit.

<sup>10</sup> *Broadcast Music v. Columbia Broadcasting System* 441 U.S. 1 (1979).

<sup>11</sup> This right to bypass ASCAP was the product of a prior antitrust settlement.

this observation, one could analyze the forward sale by saying that {D, B} is not an improving coalition because the painting is already sold even though it still hangs in the gallery. Here, and in many situations, this may be the soundest answer.

Another tack (less compelling in this instance but perhaps helpful in others) would say that the forward sale did limit {D, B}'s freedom to trade, but might yet not violate Section 1. First, the forward sale may well have helped D and A to trade in the first place, so it might on balance increase freedom to trade. This approach would try to balance pro and anticompetitive effects in terms of the competitive process, not directly balance efficiencies. Second, even if forward sales hinder the competitive process, one might allow them if they greatly improve efficiency. This approach would try more directly to balance inefficient outcomes against anticompetitive restraints.

### 3. Freedom to Trade and Monopolization.

As the quotation from Justice White suggests, Section 2 tries to ensure that monopolies do not thwart others' incentives to trade around a greedy or incompetent monopoly. This might suggest glossing Section 2 as: *A monopoly may not block improving trade between customers and rivals who would offer customers a better deal.*

How, if at all, can a monopoly do that? Raising rivals' costs can do it: consider sabotaging a key rival's factory, or threatening customers who deal with rivals.<sup>12</sup> Less obviously, we show below how a firm might discourage improving coalitions using pricing—not price *levels* but pricing *patterns*. A low price may exclude, but only by its merit: that is, only by offering customers a genuinely good deal. But a pricing *pattern*, it turns out, can hinder the competitive process by forcing rivals to compete against a price lower than the price that customers pay.

To see how this can happen, we first note two simple models in which it fails. First, suppose that  $n$  firms each set a price simultaneously. Each firm's price to consumers is also the price against which its rivals compete. If a rival offers a better deal, it gets the business.

Second, in the contestability model of Baumol, Panzar and Willig [1982], an incumbent sets a price, and potential entrants make entry decisions knowing that (for long enough at least to recoup sunk costs of entry) they can compete against that price. Again, if a rival offers a better deal than what customers pay the incumbent, the rival wins the business.

Reflecting the powerful intuition of such models of simple price *level*, Posner (2001: p. 34) wrote:

*The framers of the Sherman Act were concerned with the "trust" problem, but what they conceived that problem to be is obscure, and indeed contradictory. They seem to have*

---

<sup>12</sup> As this sentence indicates, otherwise-improving trade between a rival and a customer could be discouraged from either end. Blowing up a rival's factory is a popular hypothetical in antitrust commentary: see, for example, Roundtable: Recent Developments in Section 2, Antitrust Magazine, Fall 2003, p. 20. Somewhat similarly, *Conwood* involved a claim that one firm ruined another's sales displays. *Conwood v. United States Tobacco* 290 F. 3d 768 (2002).

*been concerned with low prices harmful to small-business competitors of the trusts... as well as with high prices harmful to consumers. ...Protecting competitors from low prices and consumers from high prices are incompatible objectives, with a few rare exceptions, such as when a monopolist prices below cost in an effort to intimidate a potential entrant.*

Indeed, if competition involved simply naming one price, that price could not simultaneously be too high and too low. But the contradiction disappears if the price confronting competitors is not the price that consumers pay.

For instance, monopoly  $M$  charges a high price  $H$ , but would cut its price upon entry to  $L$ . A potential rival  $R$  who knows this and who cannot compete successfully against  $L$  will not enter; with no entry, customers pay  $H$ . If  $R$  could profitably attract buyers away from  $H$  but not away from  $L$ , then  $R$  and the buyers are not “free to trade.” Specifically, relative to the situation in which  $M$  charges  $H$ , there would be an improving coalition of  $R$  and customers, but its formation is thwarted by  $M$ ’s threat to lower price to  $L$ . Is  $M$  “competing on the merits,” the touchstone of competitive behavior since *United Shoe*?  $M$ ’s “merits” are inversely measured by the consumer price  $H$ , but it “competes” using  $L$ . In that sense, when  $H$  and  $L$  differ,  $M$  is not competing on the merits. We say that a firm has *moved the goalposts (thus restraining freedom to trade) if its rivals must compete against a price lower than the price its customers pay.*

Moving the goalposts restrains  $R$  and customers from trading to their mutual betterment, relative to  $M$ ’s pre-entry price of  $H$ . More concretely, allowing monopolies to move the goalposts chills entry and may well have bad consequences (see Edlin (2002 and 2011)). That said, setting policy to prevent it raises very real difficulties, both practical and conceptual. At the conceptual level,  $M$ ’s post-entry price of  $L$  represents, ex post, an improving coalition of  $M$  and customers, relative to  $R$ ’s offer.

Antitrust has long wrestled with the concept of exclusionary pricing, often formulated (stressing the paradox) as whether prices can be “too low.” That formulation suggests a focus on the *level* of price, for example relative to the firm’s cost. But, as suggested by the discussion above, an incumbent’s pricing *pattern* can restrain or tax potential trade by others. Here the low price is charged only out of equilibrium: consumers do not benefit from it.<sup>13</sup> In this view, neither high pricing nor low pricing is itself a problem. What is cheating is moving the goalposts, not putting them in a “bad” spot. Note that nothing in this core logic turns on the relationship between the incumbent’s price and its costs.

#### **4. Bundling and Loyalty Pricing**

Suppose that buyers buy good 1 from firm  $A$ , and may buy good 2 either from firm  $A$  or its rival firm  $B$ . If  $A$  worsens the terms of trade in good 1 when the buyer buys

---

<sup>13</sup> Of course, a court would only observe a price that occurs. A lawsuit erupts only if an entrant mistakenly enters anyway, and then is driven out. But the fact that the case is brought only ex post does not imply that the antitrust analysis should focus on the ex post effects.

good 2 from B, the worsening creates a tax on trade between firm B and the buyer. When there is significant surplus in good 1 relative to likely quantities of good 2, the tax may exclude trade between B and the buyer even while A charges a high marginal price for good 2. In this way, much as in our monopolization discussion above, B may have to compete against a low price (net of the tax) even while the buyer has to pay a high price for incremental units of good 2 (including the tax if it buys from B).<sup>14</sup>

These concerns seem to align with the general notion of moving the goalposts and finding a pricing pattern that hinders B-buyer trade by means other than simply charging low prices to the buyer. On the other hand, the tax is avoidable if the buyer ceases to buy good 1 from A, so it is limited by the buyer's surplus in good 1. Moreover, B and the buyer can trade between themselves if they are willing to say goodbye to A, so there is no violation of plain freedom-to-trade. Thus, we see that moving goals is in some ways broader than restraints on freedom to trade.

We think that a significant set of antitrust controversies thus arise where a rival and buyer(s) would like to bypass a dominant firm in one line of business but where the buyers are not willing to eschew all trade with the dominant firm. The pricing principle suggested above and the freedom-to-trade principle suggest differing answers.

## 5. Vertical Agreements

The process-based freedom-to-trade criterion need not return us to pre-Chicago antagonism to vertical agreements. Consider for example retail price maintenance ("RPM"), involving a manufacturer M, retailer R, and consumer C, and a retail price  $r$  at which R agrees with M that it will sell to C. The RPM agreement means that R is then not free to charge a higher or lower price than  $r$ . Does this restrain the freedom of {R,C} to trade? The tone of *Dr. Miles*,<sup>15</sup> overruled by *Leegin*,<sup>16</sup> suggested so. But {R, C} is not an improving coalition: without M, it has no goods to sell or consume.<sup>17</sup> On the other hand, if one considers another retailer S, if M promises R that it won't allow S to sell at  $p < r$ , one might wonder if freedom to trade is restrained.

Consider now an exclusive distributorship. M and R1 agree that M will supply R1 but not a would-be competing retailer R2. Is freedom to trade restrained? M could shift its business entirely to R2, so if {M, R2, C} is an improving coalition because R2 is a better retailer than R1, that coalition is free to form suggesting no restraint. As with bundling, the thornier issue is whether there is an improving coalition that includes R1, here {M, R1, R2, C}, and whether R1's (or jointly M's and R1's) refusal to negotiate towards such an improving coalition "should" count as restraining freedom of trade. Some vertical agreements may restrain freedom to trade, but by no means all.

---

<sup>14</sup> See e.g. Inderst and Shaffer (2010) and Farrell, Pappalardo and Shelanski (2010).

<sup>15</sup> *Dr. Miles Medical Co. v. John D. Park & Sons Co.* 220 U.W. 373 (1911).

<sup>16</sup> *Leegin Creative Leather Products v. PSKS, Inc.* 551 U.S. 877.

<sup>17</sup> If R is also a manufacturer, there is a horizontal problem, which is not our focus here, so we assume that R is purely a retailer.

## 6. Freedom to Trade and the Goals of Antitrust

Commentators as diverse as Bork (1978), Posner (2001), Salop(2010), and Hovenkamp (2006) have argued that antitrust should seek to protect total or consumer welfare. Clearly it does so, but equally clearly it is not so simple. Antitrust doesn't just fail, but explicitly doesn't try, to protect total or consumer welfare against certain obvious threats, notably the exercise of legitimately acquired monopoly power by raising price.

While trying to address those threats would certainly involve administrative difficulties and could affect ex ante incentives, antitrust's refusal to try seems proud and categorical rather than regretful and pragmatic. We think that a straightforward account of why simple monopoly pricing is legal is found in the quotation from Standard Oil with which we began. Antitrust (mainly) seeks to protect against monopoly abuse not by barring deviations from competitive outcomes, but by safeguarding the competitive process, which we suggest involves freedom to trade. Simply charging monopoly prices harms welfare, but does not limit rivals' freedom to trade, Justice White's "surest protection against monopoly".

Antitrust protects the *potential beneficial trades between* competitors and consumers. Since both consumers and competitors gain from such trade, this view can explain why both consumers and thwarted competitors have antitrust rights, even though antitrust protects "competition and not competitors." Consumers are not protected from all high prices, but only from those that a competitor would be happy to beat but for some thwarting action; this explains why a pure monopoly does not violate the law simply by charging high prices. Competitors are not protected from actual everyday low prices, but only from tactics such as moving the goalposts that block them from giving customers a better deal than a monopoly does.

Antitrust does not ban everything that reduces consumer welfare in equilibrium. Instead Congress banned restraint of trade and monopolization, which can be understood as a monopoly's erection of "unnatural barriers" (*restraints*) that "restrict free competition" in the words of Judge Wyzanski in *United Shoe*.<sup>18</sup> We explored the idea that these prohibitions may be unified if the competitive process is understood to mean the process of sellers and buyers forming improving coalitions. This contrasts with the ahistorical view that the meaning of "competition" is anything that improves total or consumer welfare.<sup>19</sup>

## 7. References

Baumol, William J., John C. Panzar, & Robert D. Willig (1982). *Contestable Markets and the Theory of Industry Structure*.

---

<sup>18</sup> U.S. v. *United Shoe* 110 F.Supp. 295 (D. Mass. 1953). *Aff'd Per Curiam*, 347 U.S. 521 (1954).

<sup>19</sup> On an economic view of process versus outcomes, see for instance Farrell (2006).

Bork, Robert (1978), *The Antitrust Paradox: A Policy at War with Itself*. Basic Books, New York.

Edgeworth, F.Y. (1881), *Mathematical Psychics*, London: C. Kegan Paul.

Edlin, Aaron (2002), "[Stopping Above-Cost Predatory Pricing](#)," *Yale Law Journal*, Vol. 111, 941-991, January 2002.

Edlin, Aaron "Predatory Pricing," forthcoming in *Research Handbook on the Economics of Antitrust Law*, 2011.

Farrell, Joseph (2006), "Complexity, Diversity, and Antitrust," *The Antitrust Bulletin* 51:1 (Spring): 165-173.

Farrell, Joseph, Janis Pappalardo, and Howard Shelanski (2010), "Economics at the FTC: Mergers, Dominant-Firm Conduct, and Consumer Behavior," *Review of Industrial Organization*.

Hildenbrand, Werner (1974), *Core and Equilibria of a Large Economy*, Princeton University Press, Princeton, NJ.

Hovenkamp, Herbert (2006) *The Antitrust Enterprise*, Harvard University Press.

Inderst, Roman, and Greg Shaffer, "Market Share Contracts as Facilitating Practices," unpublished (2010).

Posner, Richard A. *Antitrust Law: An Economic Perspective*, 1976, University of Chicago Press, Chicago, Illinois.

Posner, Richard A., *Antitrust Law*, 2<sup>nd</sup> Ed., 2001, University of Chicago Press, Chicago, Ill.

Salop, Steven (2010), "Question: What is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard," 22 *Loyola Consumer Law Rev* 336-353 (2010).

Sjostrom, William (1989), Collusion in Ocean Shipping: A Test of Monopoly and Empty Core Models. *The Journal of Political Economy*, Vol. 97, No. 5, pp. 1160-1179.

Telser, Lester G. (1978), *Economic theory and the core*. Chicago: University of Chicago Press,.