# Other Markets, Other Costs: Modernizing Antitrust 

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# OTHER MARKETS, OTHER COSTS: <br> MODERNIZING ANTITRUST 

Jeffrey L. Harrison*

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## I. Introduction

Today's antitrust law is characterized by stagnation and indeterminacy. The failure is so thorough that it is not clear that United States competition law actually leads to any outcomes that are defendable except at the most superficial level. ${ }^{1}$ Moreover, when enforcement does result in a single desirable outcome, it is not clear that it is the best outcome. The principal reason for this state of affairs is that antitrust scholars ${ }^{2}$ and courts cling to goals that are misguided and theories that have not evolved despite an avalanche of information now available that can modernize the discipline. ${ }^{3}$

The current theories are, in effect, intellectual antiques. Adherence to them skips over questions like: do people have different preferences for different levels of competition? ${ }^{4}$ Do they consistently prefer lower prices? What does "better off" mean? Does "better off" have a temporal component? ${ }^{5}$ Are the preferences exhibited in the market ones that are consistent with overall welfare? Indeed, antitrust law seems to have exiled itself to an intellectual island where answers to the critical questions that determine the success or failure of antitrust policy are unwelcome. Conventional models maintain their grip by virtue of assumptions that are unwarranted along with healthy doses of conscious ignorance. ${ }^{6}$

In order to understand this, first take the notion of efficiency. One express goal of antitrust is to apply the laws in order to avoid a negative impact on the most efficient firm in the industry. ${ }^{7}$ Finding that such a firm

[^1]has violated the antitrust laws is regarded as a false positive. ${ }^{8}$ The current view is that false positives are the worst possible outcomes. ${ }^{9}$ There are three obvious problems with this blind adherence to an unnecessarily narrow view of efficiency. First, when defining efficiency, only those costs that are internalized by the firm count. The firm that is most adept at not paying for the resources it uses may be the game-winner in antitrust. This is inconsistent with efficiency as properly defined.

Second, in many instances, consumers exhibit a preference for goods that are not produced at the lowest cost. ${ }^{10}$ For example, they may actually have a higher preference for and be willing to pay more for products that are produced by workers who labor under humane conditions. This can mean higher costs of production and higher prices. Clearly, something is going on other than consumers wanting the lowest prices. Moreover, these preferences are and can be expressed in markets. Antitrust law, on the other hand, with its emphasis on lower costs and prices, may impede the market. What antitrust policy has missed is that, just as buyers have' preferences for products, they have preferences for the types of markets in which goods and services are produced. Highly competitive markets may not be the most preferred.

Third, some markets exist to serve the vanity of buyers. The attractiveness of a product can be a function of its ability to create envy in others or to signal one's status. What makes these products desirable and thus increases consumer welfare, is the price itself and, up to a point, the higher the better. In effect, there are markets for price, and firms compete not on the lowest price but on the role that price plays in signaling the buyer's place in society. This is awkward for another reason: how does the notion of efficiency accommodate those instances in which a buyer's pleasure is measured in part by the extent to which it makes others feel worse? A comprehensive and economically accurate competition policy is not one that focuses solely only on the usual externalities associated with production but also on the psychological impact of goods purchased to diminish other people.

This Article has two main sections that necessarily overlap. The first examines the three principal goals of antitrust-consumer surplus, ${ }^{11}$ allocative efficiency, productive efficiency-and explains why they are

[^2]imperfect, incomplete, and indeterminate guides for policy. ${ }^{12}$ The purpose of this section is not to express a nihilistic view of antitrust but to demonstrate that those who protect the status quo approach to antitrust stand on a wobbly foundation, and also to suggest that if the current rigidity in antitrust economics continues it will be at the expense of the relevancy of the discipline. It includes, sometimes by implication, proposals for improvement.

The second section continues that basic theme but considers two specific areas in which growth is needed if antitrust is to remain relevant in the next fifty years. They may or may not be addressed but, if they are not, the legitimacy of antitrust economics and its application will surely be called into question. The concluding section offers specific recommendations for the modernization of antitrust.

Before beginning, I note two concerns that are not addressed here but may seem to follow from the explanations. First, all that follows is itself based on economics as a positive as opposed to normative discipline. For example, some recent writings have considered whether antitrust should be more mindful of "happiness" ${ }^{13}$ and moral values of antitrust. ${ }^{14}$ To be sure, one can adopt a normative perspective when it comes to antitrust. Indeed, those who stick to the teachings of neoclassical economics do just that if only by implication. ${ }^{15}$ This Article strives to stay on the positive side of things. What follows in the next part are economic-not morality based-arguments that the current policy cannot maximize anything with any level of confidence. The second part is slightly more normative in that it suggests factors that ought to be examined before settling on the direction antitrust is to take.

Second, in an article with these themes, discussion of the adoption by antitrust scholars and judges of wealth maximization, or Kaldor-Hicks efficiency, ${ }^{16}$ as a measure of efficiency is unavoidable. That easy target is not the subject of this Article. To many it may be the most alarming element of antitrust policy and the application of economics to law more generally. The criticisms are pervasive and convincing. ${ }^{17}$ It is a standard

[^3]of efficiency that rests entirely in the capacity of market expressions or their equivalents. When transferred to antitrust it appears under the label of allocative efficiency-which roughly means inputs are drawn in to the production of the most valued goods. The key word here is "valued," which in this context means only increased well-being that can be paid for. Under these guidelines, if a firm purchases a chemical-say, as a preservative for its high priced and popular brand of caviar-and by so doing outbids a medical supply company that would have used the same chemical to save the lives of the premature children of poverty level mothers, the outcome would be allocatively efficient and wealth maximizing. ${ }^{18}$

## II. The antitrust Economics House of Cards

The two most often discussed goals of antitrust are to maximize consumer surplus and to encourage markets to move to allocatively efficient levels of output. Less often-mentioned but perhaps as important is to encourage productive efficiency. All of these goals may be advanced by increased competition but, as has been illustrated, that is not always true. ${ }^{19}$ The situations in which they may not be simultaneously achieved have been aptly described elsewhere and remain a problem for policymakers and scholars to grapple with. ${ }^{20}$ The problems addressed here go deeper. They apply even if all three goals could be simultaneously achieved.

## A. Consumer Surplus

## 1. In General

The most tenuous goal is consumer surplus. Consumer surplus is the difference between what a buyer pays for a good or service and the most

[^4]he or she would have been willing to pay. ${ }^{21}$ Willingness to pay is illustrated by the demand curve ${ }^{22}$ for a specific good or service. Consumer surplus is, in a sense, a type of psychological profit or, for those familiar with contract law, the benefit of the bargain. Some of the problems of focusing exclusively on consumer surplus are well known; for example, it applies only to those who are well-funded enough to engage in market transactions. ${ }^{23}$ In fact, the idea that a huge public investment in antitrust enforcement is made with the goal of benefitting those who are well-funded enough to express their needs and preferences in markets is itself a little worrisome. ${ }^{24}$ Second, even the measure of consumer surplus tells us very little about actual surplus. For example, the price of a product may be ten dollars; two consumers may buy it and would have been willing to pay fifteen dollars for the item. Have they enjoyed equal consumer surplus? Yes. Can we say they are equally better off? No. For one person, the savings of five dollars may mean being able to buy something else that is desperately needed. For the other it may mean very little. Maximizing consumer surplus means nothing more than maximizing an artificial measure of welfare and thus, what has in fact happened cannot be determined.

## 2. Decisional Demand and Actual Well-Being: Snapshot Efficiency

A major factor that separates consumer surplus from a defensible competitive end is that consumer surplus is determined at the time of the transaction. Obviously, the moment of the transaction is terribly important to businesses; prices and quantities are determined and plans for the future are formed. It is not as important to buyers who are supposedly the beneficiaries of competition and antitrust. ${ }^{25}$ For example, suppose Jack buys a new shirt for $\$ 50$ and would have been willing to pay $\$ 60$. It is only at that instance that consumer surplus is measured. We do not know how well-informed Jack is. He may suppose the shirt is cotton and when unpacking it finds that it is linen. He may try it on in front of his partner who tells him it's "just okay." These things have an impact on Jack's actual welfare. Consumer surplus is akin to a snapshot of someone in motion. That snapshot may be a function of whim, fear,

[^5]lack of information, impulse, addiction, low self-esteem, and various other temporary or permanent factors that are not related to the actual utility the purchase will create. Without more the picture tells you nothing about whether it will be a hard or soft landing, in water or on a rock. Daniel Kahneman captures the problem succinctly: "utility is inferred from observed choices and is in turn used to explain choices. ${ }^{266}$ And, when the choices are made in markets, it only tells you that much about those with the means to express their desires in the market. The only true measure of substantive consumer surplus is determined sometime after the transaction. ${ }^{27}$

The key here is the difference between decisional utility and experienced utility. Decisional utility is what consumer surplus is based on; it is determined by anticipated outcomes. ${ }^{28}$ Experienced utility is what is actually felt or sensed by someone as a result of the decision. ${ }^{29}$ In experimental studies, experienced utility can come in two forms. One is an actual moment-to-moment assessment of utility. ${ }^{30}$ The other is based on memories of an experience. ${ }^{31}$ For example, if a person dines in a restaurant, decisional utility is established when his or her order is given. Moment-by-moment would be determined by asking at points during the meal how happy the person is. Finally, remembered utility is assessed after the meal is eaten and the subject is asked to rank the meal in terms of level of satisfaction. ${ }^{32}$ Another way to express this is that decisional

[^6]utility or consumer surplus is based on hopes. Experienced utility or actual utility is based on what happens on a moment-to-moment basis or on the memories of what the subject now believes did happen. Kahneman and others have demonstrated how experienced utility may be measured in a variety of contexts. ${ }^{33}$

The implication of these possibilities are illustrated in Figure 1. A represents a conventional demand curve based on expected utility. ${ }^{34} \mathrm{~S}$ is the supply curve. The equilibrium price and quantity are P1 and Q1, respectively, and the area P1CA represents consumer surplus. If markets, with the aid of antitrust, work to achieve this equilibrium level, consumer surplus is supposedly maximized. This is however, decision-based consumer surplus which may or may not line up with actual utility. In fact, there is no a priori reason to believe it does line up. Suppose consumers actually experience. lower-than-expected utility levels. The experience-based demand curve could be E1. ${ }^{35}$ This would be demand if it were based on the actual utility derived from the good or service. If the price remained at P1, the highest possible consumer surplus would be P1EB. An antitrust policy based on demand A overshoots the mark and results in disutility for those purchasing units Q1-Q2. That loss is measured by ECG. That is not the end of the bad news, however. Since maximum consumer surplus is at Q2, the consumer disutility by overshooting the mark must be subtracted from P1EB. Thus the difference between experienced utility and utility based on expectations is $\mathrm{ABDFC}{ }^{36}$

[^7]Figure 1

Price, cost


Of course the opposite is possible as well. Consumers purchase at levels associated with demand curve A but their experienced utility is actually E2. One might look at the Figure and estimate the forgone consumer surplus is equal to area CHI but this is not quite accurate. The problem is that if demand were E 2, a competitive market would establish a higher price of P2 and a quantity of Q4. Actual maximum consumer surplus would be P2IK. Operating under the impression that demand is A, antitrust policy will not and likely cannot be designed to react to
experienced demand and to maximize the associated surplus. Q1 units would be sold, which is less than the optimal quantity for this industry as determined by experienced-based demand, and there would be a shortage relative to the utility maximizing level of output. ${ }^{37}$

## 3. The Perfect Information Assumption

In effect, an antitrust policy centered around the demand exhibited in markets is not one that can be connected to any particular welfareenhancing end. ${ }^{38}$ It is unlikely that anyone doubts this. Nevertheless, the analysis so far might be criticized by arguing that theory of which I am critical is based on the assumption of perfect information and that I have violated that assumption. ${ }^{39} \mathrm{Or}$, in other words, we are somehow obligated not to criticize a theory by noting the artificiality of its assumptions. ${ }^{40}$ This is an odd response particularly because antitrust is hardly based on the possibility of perfect information. In fact, it is because of the absence of perfectly competitive conditions, including perfect information, that antitrust exists at all. Moreover, think of what is actually being said: a criticism is inappropriate if it questions one of the assumptions of the model. It is important to remember that the assumption itself is another means to an end. In this case it is to simplify the analysis; it has no other importance. If the assumption means the model veers far from reality, the model may be sound, but it fails at the application stage. ${ }^{41}$ Nevertheless, nothing so far violates the perfect information unless perfect information means knowing things that are literally unknowable. Instead, the perfect information standard is met by the fact that one knows he or she does not know.

[^8]
## 4. Can Markets Solve the Indeterminacy of Consumer Surplus?

A more interesting objection is that experienced and decisional demand will draw closer together. For example, having experienced the same restaurant, suit, and airplane flight, one's expectations are fully informed and demands E1 and E2 in the Figure converge on demand curve A. This may very well be true but many purchases are either onetime only or infrequent. In these cases, very little learning takes place. In addition, learning may take place at the same time that evaluative standards and perceptive facilities evolve. If so, the possibilities of being disappointed or pleasantly surprised may not decrease at all. In short, even though A and E1 or E2 may converge in some instances, perhaps in response to reading the ever-present internet evaluations of goods and services, the extent to which this occurs is an empirical question and certainly does not support a prediction that the market will solve the expected vs. actual problem.

## B. Allocative Efficiency

## 1. Generally, and its Dependency on Decisional Utility

Allocative efficiency occurs when resources are drawn into their most valued uses. It maximizes the sum of consumer surplus and producers' surplus. ${ }^{42}$ Simply put, producers, knowing the demand they face for their output, go into markets and purchase inputs. They purchase these inputs until the marginal cost of the inputs equals the price ${ }^{43}$ for which the output can be sold. In other words, as long as the perceived value of a unit of output (as indicated by the demand curve) exceeds the costs of the resources used in producing that output, it is efficient to produce that unit of output. The market, like a giant vacuum cleaner, will pull resources into those markets where the output is perceived as being of greater value.

This can be understood by once again referring to Figure 1. At each $Q$ for each demand curve, there is a corresponding $P$ or price. The price for each Q indicates the most people would be willing to pay for that quantity to be purchased. As long as P exceeds the cost of production as indicated on the supply curve, it is allocatively efficient to produce that level of output. Thus, if A is the demand curve, the allocatively efficient level of output is Q1.

Demand can be analogized to a stoplight that serves as a signal to

[^9]producers about how aggressively they should acquire inputs to bring into each market. On the graph, for quantities to the left of Q1, the signal is green-resources should be channeled into the production of that product. On the right side, it is allocatively inefficient to produce a higher quantity. It is a nice theory, but what the analysis of demand and consumer surplus discussed above demonstrates is that the stop light malfunctions whenever decisional demand differs from experienced demand. On the graph, when experienced demand is to the right of decisional demand, the light is red when it should be green. The opposite occurs when the experienced demand is to the left of decisional demand.

## 2. Second Best Issues ${ }^{44}$

Two other issues arise with respect to allocative efficiency that can be viewed as separate from those arising from misleading demand signals. The first problem is well-known to economists, but virtually ignored by those specializing in antitrust economics. ${ }^{45}$ Keep in mind that when a private party or a government enforcement agency applies the antitrust laws they focus on a single industry. In fact, distinguishing one market from another is a critical part of virtually every antitrust case. ${ }^{46}$ Ideally, the result will be to bring the industry closer to conditions that would exist in the context of perfect competition wherein prices would approach costs of production and those costs would be the lowest possible in the industry.

While that is the narrow goal in the context of single action, this is hardly the equivalent of achieving allocative efficiency. In fact, making one market more competitive may or may not advance the goal of allocative efficiency at all. Consider an example involving substitute products: apples and pears. Apple prices are $\$ 4$ per pound and determined by a price-fixing cartel. The cost of production is $\$ 3.50$ and some inputs are purchased in imperfectly competitive markets. Pears, on the other hand, are sold under competitive conditions at a price of $\$ 3.75$ per pound which reflects the cost of inputs bought in perfectly competitive markets.

Now suppose a private party or a government agency decides to enforce the antitrust laws against apple producers who are fixing prices. The output market then becomes competitive and the price of apples drops to the cost of production of $\$ 3.50$. As a consequence, some people

[^10]who were buying pears sold at allocatively efficient levels switch to buying apples. In effect, the result of the enforcement has not resulted in a better outcome. It has, in fact, switched buyers from markets in which resources were drawn into production at allocatively efficient levels to a market in which they are not. The better solution in terms of allocative efficiency might have been to allow the cartel to continue operation.

Many readers will recognize this as a simple example of the theory of second best. ${ }^{47}$ In effect, unless all markets can be made to behave competitively, the second best solution may mean doing something different altogether. In the context of antitrust, this may mean that any action taken to increase allocative efficiency may in fact render markets, on balance, less efficient. By consistently ignoring the interdependency between so-called different markets, antitrust law, as currently applied, fails to achieve allocative efficiency even if all the problems discussed thus far did not exist. As economist Mark Blaug reminds us: "first best optima are never actually observed in a second best world, it is not in general desirable to fulfill any of the first best optimum conditions; in other words piecemeal welfare policies may be based on good or bad qualitative judgments but they are not based on rigorous analytical theorems. ${ }^{\text {" }}{ }^{48}$

A good example of enforcing the antitrust laws in a way that ignores the theory of second best, and which may result in a worse outcome than doing nothing, is bilateral monopoly. Assume, for example, that there is one large seller of a product that is necessary to produce large crops of tomatoes; in other words, a monopoly or a firm with a very high level of market power. The impact of monopoly on price is well known. Prices will be above-cost and competitive levels and output will be reduced. Suppose in order to counteract this, farmers who buy from the monopolist horizontally agree to pay only a certain price. This could easily bring prices down closer to competitive levels and increase output. The problem is that the farmers will be viewed as engaging in a horizontal agreement in violation of Section 1 of the Sherman Act. ${ }^{49}$ In effect, the better solution is to allow the farmers to fix prices.

## 3. Allocative Efficiency and Externalities

Perhaps the most glaring misstep in current antitrust thinking is ignoring externalities. In this context, externalities are costs of production

[^11]that are not absorbed by the firm engaged in the production of a good or service. Any conclusions about allocative efficiency or productive efficiency ${ }^{50}$ are incorrect if externalities are not fully accounted for. For example, the typical polluting factory, using its accounting data, may appear to be producing a unit of output for $\$ 20.00$. On the other hand, if smoke from its factory causes respiratory illnesses, damage to the property of others, or the environment generally, the cost is actually in excess of $\$ 20.00$. The producer is consuming clean air or water and creating a cost of production without internalizing it. For this reason alone, the idea that increased competition and antitrust policy are means to achieving allocative and productive efficiency crumbles. ${ }^{51}$

Probably the most apt actual example involves the important Supreme Court decision in Brooke Grp., Ltd. v. Brown \& Williamson Tobacco Corp. ${ }^{52}$ Ultimately, the case called for the Court to assess when low pricing could be the basis of a successful claim under the RobinsonPatman Act, ${ }^{53}$ or under Section 2 of the Sherman Act, ${ }^{54}$ that a party had engaged in predatory pricing. The Court announced a two-part test for predatory pricing. First, plaintiffs were required to demonstrate that defendants were offering prices that were below the cost of production. ${ }^{55}$ Second, there must be a reasonable likelihood that the firm engaged in predatory pricing will recoup the losses incurred during the period of predation when it raises prices and when competitors exit the market. ${ }^{56}$

This formation can be defended only in the narrowest sense of determining whether a defendant is engaged in an activity that appears to have the goal of eliminating competitors. Beyond that superficial first impression, the standard fails with respect to every other goal of antitrust policy. Consider the goal of allocative efficiency. A firm that does not internalize the full costs of production is not operating at an allocatively efficient level. This can be visualized by returning to Figure 1 and

[^12]55. Brooke Grp., 509 U.S. at 222.
56. Id. at 224 .
examining the supply curve. The supply curve for individual firms is reflected in the graph. The supply or cost curve that reflects actual resources used will be above that curve and the allocatively efficient level of output would be less than that depicted on the graph.

The whole matter becomes more troublesome if put in the context of a lawsuit based on predatory pricing. Suppose Firm A produces cigarettes for $\$ .10$ each and sells them for $\$ .12$ each. These are internalized costs and the firm would not be regarded as engaged in predatory pricing. At the same time suppose its production harms users of cigarettes or results in air or water pollution that is equivalent to $\$ .03$ per cigarette. Across the state line where environmental laws are stricter, a competing producer internalizes all costs and offers cigarettes for $\$ .13$ each. Its level of production is allocatively efficient but its lawsuit against its lower-pricing competitor will fail. In fact, not only would it fail, but under current antitrust standards, the first producer might well be regarded as more efficient. The second producer can continue to lose business or relocate to the state in which it can operate "more efficiently." ${ }^{57}$ In effect, there is a distinction between what might be labeled "predation" and "social predation." Antitrust law focuses on private predation, and this is only loosely connected to allocative efficiency as properly defined.

One response to this is that including social costs in the determination of costs for assessing predatory pricing runs the risk of false positives firms will be found to have violated the antitrust laws when they actually have not. This is an awkward argument to make because it also means that avoidance of so-called false positives is so important that predatory pricing decisions are only valid if based on an incomplete accounting for costs. In addition, ignoring externalities creates incentives that are inconsistent with a great deal of tort, property, and environmental law designed to encourage internalization and allocative efficiency. In short, one way to avoid liability under a theory of predatory pricing is to externalize as many costs as possible.

## C. Productive Efficiency

## 1. Generally

In recent cases, courts and government agencies express concerns about productive efficiency. ${ }^{58}$ Productive efficiency is achieved when the

[^13]resources drawn into the production of a good are employed to produce the good at the lowest possible cost. ${ }^{59}$ This is ultimately a benefit to consumers. If a firm uses fewer resources to produce given levels of output, the supply of those inputs is higher to producers of other goods. Input prices for those other goods decline and, ultimately, the price of output will also fall. This chain of events occurs if antitrust law is enforced in a way that protects the most efficient producers.

In some competitive industries, productive efficiency takes care of itself. Firms will be motivated to lower costs of production in order to charge lower prices and remain competitive. As will be explained in the following Part, not allowing for externalities presents one problem. Another problem is that the conditions necessary to assure productive efficiency are rarely present.

The problem, as explained by Oliver Williamson in an important 1968 article, is that competition and productive efficiency may be at odds with each other. For example, firms may have to produce at certain levels to enjoy the economies of scale that are consistent with productive efficiency. If the number of firms that can operate at this minimum optimal size is small, it increases the chance that they will be able to collude on price or exhibit the type of interdependent behavior that will result in higher-than-competitive prices. ${ }^{60}$ Each unit of output will be produced at a lower cost, which means conserving resources, ${ }^{61}$ but the price paid may exceed competitive prices. In effect, the cost of productive efficiency in one market is a decrease in consumer surplus. ${ }^{62}$

The quandary of productive efficiency has been addressed in two contexts. First, as is obvious from the above example, is in the context of mergers. The critical question is whether a merger that would reduce competition should escape condemnation because of the impact it has on productive efficiency. The Guidelines issued by the Justice Department and the Federal Trade Commission ${ }^{63}$ with respect to public merger policy enforcement reveal a great deal of ambivalence toward an efficiency defense for mergers. ${ }^{64}$ They state that the "[a]gencies are mindful that the

[^14]antitrust laws give competition, not internal operational efficiency, primacy in protecting consumers." ${ }^{65}$ Thus, for the most part, the view expressed is that efficiencies are most likely to be recognized when they are likely to increase competition. For example, two firms who merge to operate at a larger scale and lower costs may become more of a competitive threat in an industry populated by a number of rivals. The Guidelines fall well short of saying a merger that will lessen competition may be permitted by showing the merger will mean lower costs of production. ${ }^{66}$

Recent cases have mirrored this reluctance to place too heavy a weight on efficiencies. Efficiencies must be merger-specific. This means that the merger is necessary to achieve them. They also must be verifiable and not based on speculation. In United States v. H. \& R. Block, Inc. ${ }^{67}$ the argument was made that the merger of two tax preparation companies would result in cost savings in ten different areas. The court recognized that efficiencies could lead to greater competition but noted that the efficiencies identified were not entirely merger-specific ${ }^{68}$ and were based on estimates that were not fully supported. ${ }^{69}$ In a more recent case, ${ }^{70}$ the role of efficiencies was considered in the context of a merger of two physician groups, one of which operated an emergency clinic. The merger would lead to substantially higher levels of concentration in the industry and the defendants offered an efficiencies defense based on administrative costs. ${ }^{71}$ The court noted, "[i]t is not enough to show that the merger would allow St. Luke's to better serve patients. The Clayton Act focuses on competition, and the claimed efficiencies therefore must show that the prediction of anticompetitive effects from the prima facie case is inaccurate. ${ }^{י 72}$ In short, the court refused to allow productive efficiencies to offset a negative impact on competition and, therefore, consumer welfare. Instead, productive efficiencies had to promote consumer welfare. The court even conceded that the efficiencies could result in better service and were merger-specific. ${ }^{73}$ Nevertheless it upheld the finding that the merger violated Section 7 of the Clayton Act because

[^15]the defendant was unable to connect higher efficiency to consumer welfare.

Productive efficiency has also become an important part of the analysis of bundling. ${ }^{74}$ The practice of bundling is closely related to predatory pricing and possible efforts to disguise it. ${ }^{75}$ As an example, suppose Firm A sells a single product that is typically used in conjunction with two others-to make it simple, suppose it is spoons. Firm B sells knives, forks, and spoons. Firm A manufactures spoons for $\$ 10$ and sells them for $\$ 15$. Firm B offers the complete set for $\$ 40$. Or they can be purchased separately for $\$ 15$ each. If a buyer has a preference for A's spoons, then to purchase a complete set would be $\$ 45$. Someone who wants a complete set is likely to buy from B . This will occur even if A cuts its price to its cost of $\$ 10$. Further, suppose B's cost to manufacture spoons is $\$ 12$. In short, from the point of view of productive efficiency, A is the superior producer, but the ability of B to bundle the product that it produces relatively inefficiently puts A at a disadvantage that excludes it from the market. ${ }^{76}$

## 2. Productive Efficiency and Externalities

Although productive efficiency is fairly viewed as third in line after consumer surplus and allocative efficiency as an antitrust goal, it is equally dealt with at only the most superficial level. As with allocative efficiency, external costs play an important role in determining whether a firm actually does operate efficiently or which of two competitors is more efficient. This is perhaps not as important in the case of mergers unless the efficiency in question is a product of one firm's adoption of an approach to externalizing costs that the other firm was already implementing.

The issue is likely to be more pronounced in the case of bundling where the focus is on protecting the most efficient producer. In fact, an accurate test for anticompetitive bundling is a difficult one for the courts and anyone else to develop. At this point, various tests of whether bundling should be viewed as an attempt to monopolize the commonly

[^16]produced good have been formulated. ${ }^{77}$ It is also a much discussed topic among legal scholars. ${ }^{78}$ Yet, returning to the example above, the notion that either Firm A or Firm B is more efficient in a meaningful sense, solely on the basis of internalized costs, is beside the point. Instead, the appropriate measure is which firm has the lowest costs when both internalized and external costs are accounted for. Evidently, none of the courts and scholars who purport to focus on productive efficiency or even allocative efficiency are inclined to recognize this defect in the search for antitrust solutions. In fact, their notion of "efficiency" may be a measure of firms' capacity to externalize costs as much as any ingenuity with respect to production.

## D. Summing Up

This critical examination of antitrust goals is not offered to claim that none of them should be regarded as relevant. Instead, it is designed simply to illustrate, I think without dispute, what the foundational goals of antitrust actually mean. Consumer surplus is a surrogate for well-being but has only a coincidental relationship with actual well-being. Allocative efficiency, as applied, may or may not advance the goal of efficient resource allocation. Finally, the pursuit of productive efficiency can be, and often is, inconsistent with the other goals. In fact, the convention of ignoring externalities means that any references to allocative and productive efficiency are deeply flawed. Clearly most contemporary discussion of antitrust goals is exceedingly and artificially narrow. One possible interpretation is that courts and legislatures have goals other than employing antitrust optimally. ${ }^{79}$

## III. Advances in Antitrust Thinking

The analysis thus far has identified a number of shortcomings of current antitrust policy that are easily identified; their implications with respect to improvement are obvious. In addition, there are opportunities for improvement that are not as obvious, but equally important. Much of this information has come to light after the discipline was captured by the current paradigm.

[^17]In beginning this portion of the analysis I want to quote one of the leading experts in the field of antitrust law and, perhaps, antitrust economics:


#### Abstract

When Congress has not indicated otherwise, antitrust law should use consumer behavior in the voluntary marketplace as its principal source of policy. There, values are relatively clear: consumers almost always want low prices, high quality, and convenience of distribution. They may want and be willing to pay for other things, but they almost always want these things. In cases of doubt, it is a reasonable supposition that consumer welfare is maximized by offering consumers the best quality at the lowest price. ${ }^{80}$


This all seems simple enough and has a great deal of commonsense appeal. Probably few would disagree. It seems like a reasonable starting point for antitrust policy. The question today is whether this assumption is so uniformly true that it must, in every instance, be the antitrust default assumption. We do know that it simplifies consumer preferences far more than necessary given what has been discovered in the past thirty-five years. ${ }^{81}$ Now we know enough about different markets to avoid the necessity of a one-size-fits-all view of the relevant theories for antitrust. ${ }^{82}$ Indeed, based on the evidence, the statement might be more accurate if it was that consumer welfare is maximized "by offering consumers the best quality at a fair price" rather than the "lowest" price. ${ }^{83}$

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## A. Do Consumers Want to Pay the Lowest Price?

The starting point for assessing the desire for low prices is to recall that consumer welfare is based on a Kaldor-Hicks. Thus, we know that consumer welfare and actual well-being are only loosely connected. Notions that "welfare" is linked to what occurs in markets can be disproven simply by looking around at instances of untreated medical problems, starvation, malnutrition, and a variety of other instances in which massive amounts of potential utility are unaffected by markets. But putting aside this issue, suppose consumers actually do not want the lowest possible price. If this is the case, the assumption that consumers want the lowest prices can result in false positives and false negatives that may exceed an optimal level. ${ }^{84}$

As a general matter, the market is rich with instances in which the low price appeal does not resonate with buyers. These include public responses to minimum wage proposals, "pay what you want" marketing, and the willingness of people to support sellers who have an express social welfare goal. ${ }^{85}$ Moreover, the ideas of "best quality" and "lowest price" are linked in a complex way. For example, "best quality" may, for some, mean a product produced under humane conditions and, thus, not at the lowest cost and price possible. Put differently, if lowest possible prices are not uniformly desired it means that the underpinnings of today's antitrust policy-consumer surplus, allocative efficiency, and productive efficiency-are weakened and need to be refined in a way that brings them in sync with current consumer preferences. ${ }^{86}$

Perhaps the most telling evidence of this is what polls show about the minimum wage. Uniformly, and for some time, a majority of Americans have supported raising the minimum wage. ${ }^{87}$ Although it is possible they are unable to understand that this may mean raising the prices of goods and services produced by minimum wage workers, this possibility is likely a stretch even for those who are most cynical about the intelligence of the American public.
84. As noted earlier, antitrust law is currently implemented to avoid false negatives at the expense of false positives. There appears to be no empirical support for that policy.
85. These are all discussed in the following pages.
86. One of the most important articles that questioned on a comprehensive basis the underpinnings of conventional economic thought is Amartya Sen, Rational Fools: A Critique of the Behavioral Foundations of Economic Theory, 6 Phil \& Pub. Aff. 317 (1977).
87. Bruce Drake, Polls Show Strong Support for Minimum Wage Hike, Pew Research CENTER (Mar. 4, 2014), http://www.pewresearch.org/fact-tank/2014/03/04/polls-show-strong-support-for-minimum-wage-hike/; National Poll: Small Businesses Support Increase in Minimum Wage, http://www.businessforafairminimumwage.org/news/00335/national-poll-smal 1-businesses-support-increasing-minimum-wage; Jeanne Sahadi, Strong Support for Raising the Minimum Wage, CNN MoNey (June 9, 2014), http://money.cnn.com/2014/06/09/news/ economy/minimum-wage-poll/.

On a less comprehensive basis, the "lowest" price assumption is inconsistent with a number of other phenomena. For example, there has been a recent increase in the use of "pay what you want" (PWYW) or "name your own price" pricing policies. ${ }^{88}$ If the "lowest price" rationale is applicable, all of these efforts would result in a price of zero. Whether these efforts are eventually profitable or not, the fact that revenue is generated at all indicates that the lowest price rationale is incorrect and that an antitrust policy burdened by this assumption may well be misguided. For example, in one experiment, people riding a rollercoaster at an amusement park were offered a photograph of themselves on the ride with different pricing strategies. One was a fixed price, another PWYW, and finally, PWYW was combined with a notice that half of what was paid would be contributed to a specific charity. The final strategy increased revenue and profit over a fixed price and a PWYW strategy alone. ${ }^{89}$ Clearly, from an economic perspective, the riders viewed themselves as buying a different product when buying under the PWYW strategy, but the fact remains that they could have taken the photograph and paid nothing. Additional studies also result in outcomes that may surprise those who view customers as always wanting the lowest possible price. In a far-ranging study involving buffet meals, movie screens, and hot beverages, even though consumers could pay nothing, they paid $86 \%$ of the normal retail price. ${ }^{90}$ In the hot beverage experiment, they actually paid over $10 \%$ more than the normal retail price. ${ }^{91}$

Social scientists have extended the analysis of PWYW to determine what factors account for how much buyers are willing to pay. ${ }^{92}$ The outcomes differ depending on the context of the study, but as a general matter, perhaps surprisingly, the key is not altruism. Instead, the sense of what is a fair price plays a significant role, as does the level of satisfaction

[^19]with whatever is purchased. ${ }^{93}$
To some extent, none of these results should be surprising. In numerous prior studies, the notion that individuals focus solely on individual self-interest has been refuted. ${ }^{94}$ As discovered in the PWYW experiments, people expect prices to be fair, not the lowest. Moreover, this can extend to what a firm pays for its inputs. What this means can be understood by reference to a 1986 study by Daniel Kahneman, Jack Knetsch, and Richard Thaler. ${ }^{95}$ In a survey, they posed the following two scenarios:

1. A small photocopying shop has one employee who has worked in the shop for six months and earns $\$ 9$ per hour. Business continues to be satisfactory, but a factory in the area has closed and unemployment has increased. Other small shops have now hired reliable workers at $\$ 7$ an hour to perform jobs similar to those done by the photocopy shop employee. The owner of the photocopying shop reduces the employee's wage to $\$ 7 .{ }^{96}$
2. A small photocopying shop has one employee . . . [as in Question 1] . . . The current employee leaves, and the owner decides to pay a replacement $\$ 7$ an hour. ${ }^{97}$

In response to the first, $83 \%$ of respondents viewed the decrease as unfair. ${ }^{98}$ In the second question only $27 \%$ of respondents viewed the change as unfair. ${ }^{99}$ If we assume that the wage difference would eventually be reflected in pricing, it is clear that consumers do not want the lowest price. On the other hand, competition and antitrust policy operate under the opposite assumption. In fact, according to Kahneman,

[^20]Knetsch and Thaler, in some instances there is a "strong aversion to price rationing." ${ }^{100}$

One's reaction to this may be to ask what difference it makes in the context of antitrust policy with its emphasis on lowest cost producers. That view might be expressed in terms of products having a functional element and a fairness element. In terms of fair trade coffee the actual product might be defined as the coffee and the conditions under which it is produced. Or, in the experiment described above, the product is "products made by employees who are treated fairly." As the experiment illustrates, though, if one goes down the route of defining the product so it encompasses working conditions, things get even more complicated. ${ }^{101}$ Buyers were not concerned if new employees were paid the lower wage. ${ }^{102}$ What is deemed as fair and, thus, the willingness to pay more than the lowest price, is highly contextual. ${ }^{103}$ If products were defined by their functional element as well as by consumer preferences for the treatment of workers, one could argue that antitrust's emphasis on consumer surplus, allocative efficiency, and productive efficiency is legitimate. This is likely impossible.

But this type of analysis misses a critical part of the competition-asmeans to higher consumer surplus formulation. What the studies cited above and other events illustrate is that consumers have preferences for different levels of competition. For example, people paying monopoly prices might well prefer more competition to push prices lower but not at the expense of low paid workers employed by the monopolist. ${ }^{104}$ Conversely, buyers from a firm in a highly competitive industry may actually prefer to buy from a firm less pressed to push input prices to the lowest level possible. ${ }^{105}$ Consequently, competition is a means to certain ends, but those ends are not necessarily lowest prices.

This leads to a conclusion that may be difficult to grasp for traditionalists, but it seems irrefutable that there is a separate and to date unrecognized market at work here-the market for competition itself. In some instances consumers will literally pay more to have less competition, even if it means less allocative efficiency and productive efficiency as traditionally defined. It is too much to expect antitrust law to have a completely nuanced approach to consumer preferences about the types of markets and the preferred levels of competition. On the other hand, that does not legitimize the current state of affairs in which there is

[^21]one simplistic view of what consumers prefer and the kinds of markets that will deliver what is preferred. ${ }^{106}$ It does not seem unreasonable for enforcement officials to be cognizant of the impact of increased competition on all aspects of a good from which buyers derive utility.

In fact, the current approach adds to the problem of antitrust indeterminacy, especially with respect to the connectedness between demand and supply. For example, under the accepted theory, the supply curve is the same as the marginal cost curve of a firm. ${ }^{107}$ What the studies discussed above and widespread support of minimum wage hikes suggest is that buyers actually have preferences for the level of the supply curve (the costs incurred in production). ${ }^{108}$ For example, they may be eager to pay a few pennies more for goods made by American workers under the theory that they are less likely to work under sweat shop conditions than workers in foreign countries. ${ }^{109}$ Or they may be willing to pay more knowing workers are supplied with health care insurance. ${ }^{110}$ In effect, demand itself cannot be determined without reference to supply. ${ }^{111}$, "Lowest possible price," "most efficient producer," and "allocative efficiency" do not capture what may be very important and valued by buyers.

A supporter of the current paradigm will certainly argue these are issues that a well-functioning market could handle with more information. Consumers with a taste for fairness would respond to labels like "Union made" or "Made in the USA." Indeed, all of the things discussed here lead to marketing opportunities and the possibility of market solutions. This seems unlikely. For example, most consumers will not know how a producer goes about deciding what to pay for inputs or even the implications of labels which themselves may be deliberately misleading. In fact, there is little motivation for sellers to reveal all that is relevant. Even worse, sellers will be motivated to portray goods as produced under fair conditions and raise price accordingly but not actually provide more humane working conditions. In addition, even those wishing that firms act fairly may engage in freeriding in the sense of hoping everyone else will avoid the single-minded profit seeker while they themselves buy from the lowest price seller. This is not to say that freeriding will always occur in these situations. In fact, studies indicate that perceived unfairness is punished even when doing so is costly and

[^22]when there is no assurance that others are committed. ${ }^{112}$ For example, in the Kahneman study, participants express a willingness to avoid stores that were believed to treat employees unfairly. ${ }^{113}$

## B. Selling Price and Signaling Markets

The superficiality of notions like consumer surplus, allocative efficiency, and productive efficiency may be best illustrated by focusing on price and the motivations for some purchases. Price is, of course, one way scarce resources are allocated. ${ }^{114}$ The problem is that while serving its allocative function, price itself has other effects, some desired and some not. ${ }^{115}$ These can be connected to the concepts of consumer surplus and externalities. In the first case, a high price makes a good more desirable and can increase consumer surplus. ${ }^{116}$ In the second case, the exclusionary effect of a high price can have a negative effect on others. ${ }^{117}$ This means the focus of antitrust on the lowest price misses the welfare effects of price itself. ${ }^{118}$

## 1. Price and Consumer Surplus

In some cases, price is not merely a rationing mechanism but also a tool for signaling. For example, paying a high price that is likely to be known to others can be a sign of status, at least to those who want to impress others through conspicuous consumption. ${ }^{119}$ This is the idea of a "Veblen good." ${ }^{120}$ This phenomenon makes consumer surplus a complex

[^23]notion. We can still say that consumer surplus is equal to the difference between the amount paid and the most one would be willing to pay. ${ }^{121}$ In fact, focusing on consumer surplus is like conducting a cost-benefit analysis in which costs themselves are part of the benefit.

An illustration of the complexity of the interaction between price and willingness to pay is that people are often willing to pay more if sales people appear to reject their efforts to buy luxury goods. ${ }^{122}$ In effect, rejection in these instances means people are willing to pay more to gain acceptance by virtue of actually purchasing the item. ${ }^{123}$ An additional twist to this willingness to pay more phenomenon is that the rejection works "better" if the salesperson is seen to represent the product. The notion of representation here refers to the dress and manner of the salesperson. The seller of a Hermes purse is more effective at the "rejection" game if the salesperson seems to be genuinely associated with the brand and seems indifferent to whether the item is purchased or not.

To add to the complexity, the importance of price may differ depending on gender. It is believed that men may often exhibit lavish spending as a way of attracting mates, while studies show that women are more likely motivated by a desire to protect existing relationships. ${ }^{124}$ These results may not be consistent with the image we have or would like to have of modern relationships in the United States but, in fact, the subjects were Americans and the findings no more than three years old. ${ }^{125}$ Expensive handbags, shoes, cars, and designer tee-shirts are evidently viewed by some women as indicators of the devotion of their spouses and

[^24]123. Ward \& Dahl, supra note 122, at 604.
124. See Yajin Wang \& Vladas Griskevicius, Conspicuous Consumption, Relationships, and Rivals: Women's Luxury Products as Signals to Other Women, 40 J. Consumer Res. 834, 847 (2014).
125. Id. at 838 .
that those spouses are "off limits" to others. ${ }^{126}$ The relevant point is that a lower price is not desirable because it actually makes the product less "useful." Conversely, a higher price makes it more useful. Of course, perhaps the best outcome would be to acquire the product at a low price while everyone else has the impression that a higher price was paid. On the other hand, this may not result in the same level of satisfaction because buyers could not be confident that others were not receiving the same discount.

Price may play quite a different role in some groups. Although I could not locate studies on the matter, it seems clear from experience that paying a lower price than others can also be a source of status. ${ }^{127}$ Again, it is not a matter of getting a low price or even that competition drives prices to the lowest level. It is a matter of status to have successfully bargained for a lower price than others. This may be viewed as a desire to receive the lowest relative price as a measure of one's insight and bargaining skills. A low competitive price determined by the market does not advance this type of utility. Here, the status is a function of knowing that one did not merely get a low price because the market is competitive but because of individual skills. This also complicates the notion that people want the lowest price. In a way they do, but only if others are not enjoying the same low price.

## 2. Price-Related Externalities

The fact that markets exist for price itself may seem like a relatively benign gap in antitrust economics, but with conspicuous consumption can come envy ${ }^{128}$ or even dislike of the person engaged in the "price market." In this sense, just as a product made in a polluting factory creates an external cost not reflected in the price paid, it is likely that statussignaling goods also produce a cost to others. ${ }^{129}$

More specifically, sociologists have distinguished between the impact of benign envy and malicious envy. In the case of benign envy, individuals may not buy an item, deeming it overpriced. When someone else buys the item at that price, then the envious person finds the price

[^25]acceptable. One may try to fit this into the default idea that consumers want the best products at the lowest price but, in fact, they are found to be willing to pay an envy premium in order to eliminate their negative feelings. Malicious envy has a slightly different effect that is equally distorting in terms of what price connotes. In these instances, individuals wish to reduce envy by reducing the perceived status of the purchases of others. They signal their criticism of the envied purchase by buying an alternative. In all cases, the amount paid is not for the product per se but the result of an interpersonal comparison.

## IV. Conclusions and Specific Recommendations

I believe what is suggested here is a different way of looking at antitrust. Typically, the focus is inward with the question being how to explain phenomena so that they fit within, or can be explained by, the conventional model. Instead, the stress here is on viewing competition and antitrust law as mere tools. They are tools, however, that generate a great deal of expense ranging from enforcement costs, compliance efforts, massive expert witness costs, and the dangers of false positives and false negatives. Yet, much of current scholarship seems to be aimed at defending the tools or refining them so that the emphasis is less on what produces the best outcome and more on what is the best outcome as long as it does not disturb the traditional teachings.

To make this point in a different way, readers familiar with economics, law, and even sociology understand the concept of regulatory capture. ${ }^{130}$ A regulated firm is ultimately controlled by those regulated. Related to that is what might be called "paradigm capture." ${ }^{131}$ In this case, an entire discipline is controlled by one method of analysis. Antitrust law for several years has been the subject of paradigm capture in the sense that the resistance to new and old teachings that undermine the current theoretical model are vigorously resisted. ${ }^{132}$ In fact, the resistance is sometimes based on the argument that there are no coherent alternatives. That is hardly a defense of the status quo until the status quo is itself coherent. It is not. In short, if the emperor has no clothes, it is not a valid response to argue that others are also lightly clad. This Article aims to reverse that by challenging readers to take a more critical perspective.

[^26]The preceding pages provide a rich array of examples about how markets deviate from neoclassical theory. ${ }^{133}$ They put into play the question of whether consumers want the best products at the lowest prices. In reality, consumers are likely to want fair prices. Moreover, the focus of conventional antitrust economics on decisional demand as opposed to experienced demand creates indeterminacy with respect to what terms like consumer surplus, allocative efficiency, and productive efficiency actually mean. More disturbing on a practical level is the question of why external costs are not considered relevant in the antitrust analysis of the costs of production.

Why do antitrust economists, judges, and public enforcers cling to these theories? To paraphrase an old Woody Allen joke, it can only be because they need the eggs. ${ }^{134}$ What they get out of it is an illusion of certainty and the appearance of a theoretical basis for their political leanings.

Like any law review article, this one is a failure unless it presents some ideas about ways to improve the model or, at least, to find better "eggs." ${ }^{135}$ I will list some possibilities here, most of which will seem unrealistic to conventionalists but may have appeal to those who would like antitrust to incorporate information that has been ignored or was unavailable when the theories that guide antitrust today were adopted.

## A. The Narrow Definition of Costs

The narrow definition of costs in the context of antitrust means that any discussion of efficiency defenses, minimum optimal size, most efficient producer, allocative efficiency, productive efficiency, and predatory pricing is highly suspect. One may take the view that other areas of law are designed to ensure that firms internalize all costs of production. For those that believe that as a matter of faith, little can be said other than to note decreases in air and water quality and myriad other examples of environmental and health degradation. Perhaps the most succinct example is the notion that producers of tobacco prices do not

[^27]engage in predatory pricing as long as the extreme health hazards are not accounted for. ${ }^{136}$ This is a less difficult issue to address than it appears. Any party to an action should be able to demonstrate that external costs undercut any defenses based on claims of efficiency. In particular, in the context of bundling, if the defendant claims to be the most efficient producer, an externalities rebuttal should be available to plaintiffs. The same would be the case when a firm defends a predatory pricing claim by using internal accounting data. As a general matter, accounting data and an economic analysis are different, and it is at best odd that economists and courts rely on accounting data when offering opinions or making decisions about costs.

## B. The Realm of Externalities

More difficult in the realm of externalities is how to treat goods that are purchased for the purposes of creating psychological externalities to others. There can be little doubt that status-enhancing purchases, often signaled by high prices, come at a cost to others. There is no antitrust response to high prices set by a firm with market power. ${ }^{137}$ To some extent, this can be addressed by placing less emphasis on applying trademark laws to protect the status-signaling of buyers. ${ }^{138}$

## C. The Problem of Second Best

A problem noted here and discussed far more extensively in the work of Richard Markovits ${ }^{139}$ is the problem of second best. It is a difficult topic. Nevertheless, difficulty does not excuse the myopia of enforcement agencies and courts. The overemphasis of antitrust courts and enforcement officials on single markets exacerbates the problem. One reaction to this problem is to permit the presentation of an economic or efficiency impact statement in which a party against whom adverse action will be taken is given an opportunity to identify the harmful impact to other markets and the superiority of alternative remedies.

The idea of examining better solutions is hardly a new one in antitrust. ${ }^{140}$ In decades-old merger law, an issue arose concerning the wording of the Clayton Act, ${ }^{141}$ which prohibits mergers that may tend to

[^28]lessen competition. The key here is lessening competition. Suppose a firm that is not currently producing in an industry is a target of a merger and is actually the source of downward pressure on prices. ${ }^{142}$ As a general matter, the merger would lead to a decrease in competition, as firms within the industry would have one less potential "competitor." ${ }^{43}$ Suppose, however, even though the merger may not lessen competition, competition would likely increase if the firm entered de novo. ${ }^{144}$ In these instances, the best solution might be to enjoin the merger, although if narrowly viewed in terms of antitrust policy, there is no decline in competition. ${ }^{145}$

More recently, the possibility that antitrust allows courts and enforcement agencies to settle for second-best solutions has heated up in the context of Section 1 of the Sherman Act when firms have colluded but claimed a product necessity defense. ${ }^{146}$ This is consistent with a number of cases involving the National Collegiate Athletic Association, ${ }^{147}$ in which member schools claim that horizontal collusion is necessary to make college football a viable product. ${ }^{148}$ The defendants in these instances must demonstrate that their anticompetitive efforts
142. See generally HovenKamp, supra note 21, at 615-17; CARLTON \& Perloff, supra note 39, at 627-29.
143. The theory is that the threat of entry will encourage lower pricing by incumbent firms.
144. This is sometimes referred to as the "Actual" Potential Entrant Doctrine. In effect, de novo entry would increase in the number of competitors in the industry. For obvious reasons, the theory is more compelling if the entry was not already seen as a potential competitor. See Hovenkamp, supra note 21, at 618-19.
145. The U.S. Supreme Court has addressed the theory on at least two occasions. See United States v. Falstaff Brewing Co., 410 U.S. 526, 537-38 (1973); United States v. Marine Bancorporation, Inc., 418 U.S. 602, 625, 633 (1974). The Court did not adopt the theory but left the question open. It appears to have been applied or treated as a viable theory by some lower courts. See, e.g., BOC Int'l, Ltd. v. F.T.C., 557 F.2d 24, 25-26 (2d Cir. 1977); F.T.C. v. Atl. Richfield Co., 549 F.2d 289, 293-94 (4th Cir. 1977); F.T.C. v. Steris Corp. 2015 WL 5657294, *966 (N.D. Ohio, 2015). The current Merger Guidelines utilized by the Justice Department and the F.T.C. also seem to leave open the possibility of applying the theory. GUIDELINES, supra note 63, at 3. Section 2.1.4 reads as follows: "The Agencies consider whether the merging firms have been, or likely will become absent the merger, substantial head-to-head competitors. Such evidence can be especially relevant for evaluating adverse unilateral effects, which result directly from the loss of that competition." Id.
146. The defense was evidently first established in Broad. Music, Inc. v. Columbia Broad. Sys., 441 U.S. 1, 20-21 (1979). See also NCAA v. Board of Regents of the Univ. of Okla., 468 U.S. 85, 114, 116 (1984).
147. NCAA, 468 U.S. at 85. See generally Roger D. Blair \& Richard E. Romano, Collusive Monopsony in Theory and Practice: The NCAA, 42 Antitrust Bull. 681 (1997); Jeffrey L. Harrison \& Casey C. Harrison, The Law and Economics of the NCAA's Claim to Monopsony Rights, 54 Antitrust Bull. 923 (2009); Arthur A. Fleisher III et al., The National Collegiate Athletic Association: A Study In Cartel Behavior 10, 15, 59 (1992).
148. See NCAA, 468 U.S. at 99-101.
have led to an outcome that is, on balance, procompetitive. ${ }^{149}$ That, however, leads to another question: are there less competitive measures that would achieve the same outcome? ${ }^{150}$ One possible answer is that it is not necessary and that, having demonstrated that the actions are on balance procompetitive, the requirements of the rule of reason are satisfied. ${ }^{151}$ Actually this question has been framed in a variety of ways: is there a substantially less restrictive alternative? ${ }^{152}$ Are there any less restrictive alternatives? ${ }^{153}$ Have defendants adopted the least restrictive alternative? ${ }^{154}$ The least restrictive alternative test is particularly attractive since any other means of achieving the procompetitive outcome is costly to either producers or purchasers. ${ }^{155}$ Although there are reasonable arguments either way on this matter, ${ }^{156}$ those who reject the least restrictive alternative standard-whether due to legislation or the result of judicial conservatism-are arguably part of a culture that does not seriously consider best, or at least better, outcomes. ${ }^{157}$

## D. The Lowest Price and the Best Price

Probably one of the most perverse assumptions of current antitrust economics is that people, subject to search costs constraints, ${ }^{158}$ are constantly on a quest for the lowest prices. ${ }^{159}$ Certainly, as a general

[^29]matter, buyers would like sellers to compete, but there is no evidence that buyers consistently favor competition and low prices over the welfare of input suppliers. The low price assumption is flatly wrong when price is the "product" or low price means a decrease in quality or statussignaling. ${ }^{160}$ This suggests that, in some instances, a proper market definition includes a consideration of all facets of the product, including price and "product."

The concept of lower prices is often tied to productive efficiency. Under any conditions, including monopoly conditions, productive efficiency can lead to lower prices. ${ }^{161}$ If one considers the full implications of the view that people prefer lower prices linked to lower costs of production, the proposition is untrue on even a common-sense basis-prices could always be lower. ${ }^{162}$ At its extreme, it is a goal only met by employing the most exploitative input acquisition practices possible, including violating the law when a cost-benefit analysis indicates that net costs and prices would still be lower after any punitive sanction is absorbed. Perhaps more important are the data produced over the last thirty years, demonstrating the desire for fair prices that allow for humane treatment in upstream markets and for buyers to have a positive reaction to relative prices. ${ }^{163}$

If the antitrust laws are designed to encourage efficient use of resources, the fact that there are shadow markets for "price" and "competition" itself cannot be ignored. For example, a firm using the most exploitative practices in upstream markets may incur lower costs and charge lower prices, but there is powerful evidence that consumers have a strong preference for goods manufactured under what they perceive to be fair conditions. In effect, the notion that a product exists independent of the process that created it is demonstrably false. $A$ comprehensive antitrust policy recognizes there are markets for the

[^30]163. See supra text accompanying notes $88-98$.
competitiveness of input markets as well as for the implications of price.

## E. Kaldor-Hicks Efficiency

Earlier it was noted that one of the foundations of antitrust economics is reliance on Kaldor-Hicks efficiency. ${ }^{164}$ While a very poor substitute for experienced welfare, the adjustment is made, in part, because of the problem of interpersonal comparisons of utility. ${ }^{165}$ Although it would be ideal to abandon the Kaldor-Hicks standard, that is a normative question. ${ }^{166}$ Suppose instead the emphasis were shifted from what consumers were willing to pay for goods and services before actually making the purchase to their willingness to pay in hindsight or after experiencing the purchase. ${ }^{167}$ The usual question in the case of demand asks, "what is the most you would pay for a certain product?" A more accurate measure of efficiency, even under a Kaldor-Hicks standard, is this: "[a]fter using the product, what is most you would be willing to pay?" ${ }^{168}$ This is obviously an impossible undertaking, but it might also be visualized in terms of what a buyer would be willing to pay if he or she knew how satisfactory the product would turn out to be. Quite possibly, a process like this is already underway. Many online sellers provide extensive reviews of prior purchasers. ${ }^{169}$ For example, in the case of clothing, consumers may comment on the quality of the fabric and manufacture as well as whether a garment runs true to size. In an admittedly vague way, consumers at the decision level could begin to operate at the experiential level when making a buying decision. If competition policy is to be the means to the ends it purports to be, part of that process must include an emphasis on information about actual experienced outcomes. In effect, failure to provide extensive consumer experience information is itself anticompetitive. Although out of the reach of current antitrust laws, ${ }^{170}$ failure to provide this information

[^31]means that notions like consumer welfare and allocative efficiency mean far less than the investment currently made to achieve them would suggest. This is an instance in which legislation requiring extensive publication of consumer feedback would make experienced, as opposed to decisional, consumer surplus more likely.

Ultimately, if competition and antitrust laws are means to ends and those ends are not properly defined, the effort is largely wasted. The proper way to make antitrust policy is to determine in a meaningful way what makes people better off and then assess the capacity of competition and antitrust policy to achieve those ends. Today's policies fall well short of that type of analysis.


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[^1]:    1. In the United States the relevant ends are increasing consumer surplus, allocative efficiency and productive efficiency. These will be discussed in depth in the pages that follow.
    2. The list of "conventional" antitrust articles, books, and treatises would fill an entire law review volume. Perhaps it is more useful to note that there are exceptions. See, e.g., ADI AYAL, Fairness in Antitrust (2014); Rebecca Haw Allensworth, The Commensurability Myth in Antitrust, 69 Vand. L. Rev. 1 (2016); Carl T. Bogus, New Road to Serfdom: The Curse of Bigness and the Failure of Antitrust, 49 U. Mich. J.L. Reform 1 (2015); Thomas J. Horton, Fairness and Antitrust Reconsidered: An Evolutionary Perspective, 44 McGeorge L. Rev. 823 (2013); Richard S. Markovits, The Limits to Simplifying Antitrust: A Reply to Professor Easterbrook, 63 Tex. L. REV. 41, 58-59 (1984); Maurice E. Stucke, Should Competition Policy Promote Happiness?, 81 Ford. L. REv. 2575 (2013).
    3. See infra text accompanying notes 83-129.
    4. Or, to put it more starkly, do they always want producers to push the prices of inputs to the lowest possible level even if it means working conditions that consumers would find morally unacceptable?
    5. See infra text accompanying notes 26-27.
    6. This may be expressed as: "It's an empirical question." I am not referring to merely the usual assumptions about perfect information, many producers, ease of entry and exist which are nearly always inaccurate but to the actually connections between competitive behavior and wellbeing.
    7. See Cascade Health Solutions v. PeaceHealth, 515 F.3d 883, 906-08 (9th Cir. 2008);
[^2]:    LePage's Inc. v. 3M, 324 F.3d 141, 177-78 (3d Cir. 2003); see generally Thomas A. Lambert, Evaluating Bundled Discounts, 89 Minn. L. Rev. 1688 (2005).
    8. See Alan Devlin \& Michael Jacobs, Antitrust Error, 52 WM. \& Mary L. Rev. 75, 7677 (2010).
    9. Id. at 80 .
    10. See infra text at notes 83-113. Examples range from the market for "fair trade coffee" and "Buy American" campaigns to numerous empirical studies discussed below.
    11. For reasons noted below, this can be regarded as snap shot efficiency in that it captures an instant in time.

[^3]:    12. The basic economics in this Part will be familiar to some readers but the analysis likely will not be.
    13. See Stucke, supra note 2, at 2578-80.
    14. See Horton, supra note 2, at 833-34, 840-41, 863.
    15. The clearest example of this is adoption of a Kaldor-Hicks standard for efficiency. See infra text at notes 16-18.
    16. Kaldor-Hicks efficiency or wealth maximization occurs when resources are allocated to those who value them the most. Value here means actual monetary value not utility. See Thomas F. Cotter \& Jeffrey L. Harrison, Law And Economics 51-52 (3d ed. 2013).
    17. Although a mainstay of welfare economics for years, see Jeffrey L. Harrison, Happiness, Efficiency, and the Promise of Decisional Equity: From Outcome to Process, 36 PEPP. L. REV. 935, 942-44, (2009), the interest by legal academicians was likely spurred by Judge Richard Posner's 1981 book, The Economics of Justice which amounted to a defense, on
[^4]:    normative grounds, of the application of economic principles to law. Fairly devastating criticisms followed. See Jules L. Coleman, Efficiency, Utility, and Wealth Maximization, 8 Hofstra L. Rev. 509, 518-20 (1980); Anthony T. Kronman, Wealth Maximization as a Normative Principle, 9 J. LEG. STUD. 227, 237-39 (1980).
    18. One's initial reaction to some of what follows may be that it applies only to consumer products. Admittedly much of the discussion is about closing the gap between the meanings attributed to market transactions and what is actually behind those signals. As the discussion unfolds, however, it will quickly be clear that important portions of the discussion apply to all transactions, and those that apply to consumer transactions may reflect strong preferences about upstream transactions.
    19. See Oliver E. Williamson, Economics as an Antitrust Defense, 58 Am Econ. Rev. 18 (1968); Robert H. Bork, The Antitrust Paradox 90-110 (1978).
    20. Williamson, supra note 19.

[^5]:    21. Hebert Hovenkamp, Federal Antitrust Policy: The Law of Competition and its Practice 4 (4th ed. 2011).
    22. Technically demand is a schedule of prices and the quantities buyers would be willing and able to purchase at each price in a given market for a given time period.
    23. This raises the issue of Kaldor-Hicks efficiency which will not be examined here.
    24. This is not to suggest there is necessarily a socioeconomic bias. To the extent competition drives prices down and encourages firms to be more efficient, prices should be lower for even those whose budgets are devoted to essentials.
    25. In fairness, there is one end that is served in that goods and services are allocated or rationed. Of course, allocation could occur in many ways.
[^6]:    26. Daniel Kahneman, Experienced Utility and Objective Happiness: A MomentBased Approach, in Choices, Values, and Frames 673 (Daniel Kahneman \& Amos Tversky eds., 2000). This notion mirrors Paul Samuelson's theory of "revealed preference" in which he maintains that actual preferences are determined by choices people make. See, e.g., Paul Samuelson, Consumption Theory in Terms of Revealed Preference, 15 ECONOMICA 243 (1948). See generally Jeffrey L. Harrison, Egoism, Altruism, and Market Illusions: The Limits of Law and Economics, 33 UCLA L. Rev. 1309, 1316-20 (1986). See also Nicholas Georgescu-Roegen, Choice and Revealed Preference, 21 So. Econ. Rev. 119, 129 (1954).
    27. A broader perspective is useful in understanding the limits of equating price to wellbeing. What has been shown is that as real income has increased over the past 50 years, there is little indication that the result is that people feel better off. Ben Cooper et al., Status Effects and Negative Utility Growth, 111 ECON. J. 642, 642 (2001); Richard A. Easterlin, Will Raising the Incomes of All Increase the Happiness of All?, 27 J. Econ. BEHAv. \& Org. 35, 37, 44 (1995). The link between this fact and antitrust may not be readily evident, but consider the fact that lower prices-one of the aims of antitrust-has what is known as an income effect. See Richard A. POSNER, ANTITRUST LAW 34 (2d ed. 2001). In other words, as prices go down people are richer in terms of their capacity to spend. If increases in real income do not increase a sense of well-being, it is difficult to see how a public policy aimed at decreasing prices can be consistently depended upon to have any predictable impact on actual well-being.
    28. At the time of purchase, except for the possibility of experiencing pleasure from the transaction, all the consumer depends upon is the anticipated outcome.
    29. KAHNEMAN, supra note 26, at 673.
    30. See id.
    31. See id.
    32. See Daniel Kahneman, Objective Happiness, in Well-BeIng: The Foundations of
[^7]:    Hedonic Psychology 3, 4 (Daniel Kahneman et al. eds., 1999); Daniel Kahneman et al., $A$ Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method, 306 Science 1776, 1776-77 (2004).
    33. Kahneman, supra note 26, at 673; Daniel Kahneman et al., Back to Bentham? Explorations of Experienced Utility, 112 Q.J. ECON. 375 (1997); For other approaches to the problem of reconciling choices and welfare, see B. Douglas Bernheim \& Antonio Rangel, Beyond Revealed Preference: Choice-Theoretic Foundations for Behavioral Welfare Economics, 124 Q.J. Econ. 51 (2009); Mark Fleurbaey \& Erik Schokkaert, Behavioral Welfare Economics and Redistribution, 5 Am. Econ. J.: Microeconomics 180 (2013).
    34. Demand shows the amount that would be purchased at each price in a given market at a series of possible prices. It is, however, more meaningful to see demand as the most people would pay for each possible quantity. Thus, as one moves left to right, the price will have to decrease in order to achieve higher and higher sales levels.
    35. Note that this refers to an actual market expression, not actual utility.
    36. It should not be inferred from this that individuals who were able to predict their own future subjective welfare in line with E1 or E2 would actually act in accordance with those hypothetical demand curves; See Daniel J. Benjamin et al., What Do You Think Would Make You Happier? What Do You Think You Would Choose?, 102 Am. Econ. Rev. 2083, 2106-07 (2012); See also Daniel Kahneman \& Jason Riis, Living, and Thinking About It: Two Perspectives on Life, in The Science of Well-Being 285 (Felicia A. Huppert et al. eds., 2007).

[^8]:    37. A shortage is the difference between the quantity demanded at a specified price and the quantity supplied at that price. Of course, if the quantity supplied exceeds the quantity demanded, it is a surplus.
    38. Technically this would include even modified Kaldor-Hicks demand curve that represented willingness to pay after ascertaining the utility derived from a purchase. As indicated above, the theme of this article is not that Kaldor-Hicks is not welfare maximizing.
    39. Dennis W. Carlton \& Jeffrey M. Perloff, Modern Industrial Organization 57 (3d ed. 2000).
    40. In this case, the assumption is that anticipated and actual outcomes are the same.
    41. Those who resist questioning the assumption actually do what others do with respect to competition and antitrust - they make means into ends. Any response that suggests that it is unfair to dismiss an assumption at best means misunderstanding the function of the assumption and, at worse, is anti-intellectual. In fact, it is hard to escape the conclusion that the perfect information assumption has an ideological function; it is always as broad as it needs to be to create the sense that the model has internal integrity. It is a means of sealing the theory off from reality, even when it is obvious. From this standpoint it results in non-falsifiable outcomes and is not very interesting.
[^9]:    42. Bork, supra note 19, at 91-104; Cotter \& Harrison, supra note 16, at 43-44. (Producers' surplus is the difference between what seller receives and the least the seller would have been willing to take for what is sold).
    43. When conditions are imperfectly competitive, production extends until marginal cost is equal to marginal revenue.
[^10]:    44. Richard Markovits, Second-Best Theory and Law \& Economics: An Introduction, 73 Chi.-Kent. L. Rev. 3 (1998) (exploring the theory of second best) [hereinafter Markovits, Law \& Economics]; Richard Markovits, Second-Best Theory and the Standard Analysis of Monopoly Rent Seeking: A Generalizable Critique, a "Sociological" Account, and Some Illustrative Stories, 78 Iowa L. Rev. 327 (1993) [hereinafter Markovits, Monopoly Rent Seeking].
    45. See, e.g., BORK, supra note 19, at 113-14.
    46. Hovenkamp, supra note 21 , at 88 .
[^11]:    47. See Markovits, Law \& Economics, supra note 44; Markovits, Monopoly Rent Seeking, supra note 44.
    48. Marc Blaug, EConomic Theory in Retrospect 594 (5th ed. 1996).
    49. See generally Chris Bonti, O'Bannon v. National Collegiate Athletic Association and the Current Status of Antitrust Jurisprudence Concerning Intercollegiate Athletics, 27 U. Fla. J.L. \& PUB. POL'Y 237 (2016).
[^12]:    50. See infra text accompanying notes 58-63.
    51. Perhaps the most obvious example of the externality problem is the production of tobacco. The production of guns also arguably results in externalities. These externalities are associated with offering the products. More common externalities as those associated with the health of workers and degradation of the environment.
    52. Brooke Grp., Ltd. v. Brown \& Williamson Tobacco Corp., 509 U.S. 209 (1993).
    53. Id. at 216-17. The Robinson-Patman Act, 15 U.S.C. § 13(a) issue arose because the allegation was that the defendant was selling the same product to different buyers for different prices.
    54. Under Section 2, "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $\$ 100,000,000$ if a corporation, or, if any other person, $\$ 1,000,000$, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court." Sherman Act, 15 U.S.C. § 2 (2015).
[^13]:    57. And externalize more of its production costs.
    58. See Cascade Health Solutions v. Peace Health, 515 F.3d 883 (9th Cir. 2007). See also Posner, supra note 27, at 236; Daniel Crane, Mixed Bundling, Profit Sacrifice, and Consumer Welfare, 55 Emory L.J. 423 (2006); Daniel Crane, Multiproduct Discounting: The Myth of Nonprice Predation, 72 U. ChI. L. Rev. 27 (2005); Lambert, supra note 7, at 1715; Barry Nalebuff, Exclusionary Bundling, 50 Antitrust Bull. 321 (2005).
[^14]:    59. Bork, supra note 19, at 91 n.*; Howard A. Shelanski \& J. Gregory Sidak, Antitrust Divestiture in Network Industries, 68 U. ChI. L. Rev. 1, 18 (2001).
    60. See id.
    61. As noted earlier, meaning lower costs of production and possibly lower prices in other markets.
    62. As with all quandaries, the problem can be viewed in two ways. For example, allowing few producers in one market may increase productive efficiency in that market while lowering consumer surplus. On the other hand, since resources are then released to be used in other markets, there is no reason to think there will not be gains in consumer surplus in that market.
    63. U.S. Dep't of Justice \& Fed. Trade Comm'n, Horizontal Merger Guidelines § 10 (2010) [hereinafter GUIDELINES], available at http://www.justice.gov/atr/public/guidelines/hmg2010.pdf.
    64. E. Thomas Sullivan \& Jeffrey L. Harrison, Understanding Antitrust and Its
[^15]:    ECONOMIC Implications 396-99 (6th ed. 2013); Daniel Crane, Rethinking Merger Efficiencies, 110 Mich. L. Rev. 347 (2011) [hereinafter Crane, Rethinking Merger Efficiencies].
    65. GUIDELINES, supra note 63, at 31.
    66. Id. at 30-31. See generally Sullivan \& HARriSon, supra note 64, at 396-99; Crane, Rethinking Merger Efficiencies, supra note 64.
    67. United States v. H \& R Block, Inc., 833 F. Supp. 2d 36 (D.C. Cir. 2011).
    68. Id. at 88-89.
    69. Id. at 91-92.
    70. Saint Alphonsus Med. Ctr.-Nampa Inc. v. St. Luke's Health Sys., Ltd., 778 F.3d 775 (9th Cir. 2015).
    71. Id. at 790-92.
    72. Id. at 791.
    73. Id. at 791-93.

[^16]:    74. See Cascade Health Solutions v. Peace Health, 515 F.3d 883 (9th Cir. 2007). See also Posner, supra note 27, at 236; Daniel Crane, Mixed Bundling, Profit Sacrifice, and Consumer Welfare, 55 Emory L.J. 423 (2006); Daniel Crane, Multiproduct Discounting: The Myth of Nonprice Predation, 72 U. CHI. L. Rev. 27 (2005); Lambert, supra note 7, at 1715; Nalebuff, supra note 58, at 321.
    75. The similarity is that a seller offers a product at below cost but since it is bundled with a number of other products it is impossible to compare its price with its costs of production.
    76. The bundling issue has led to controversy and disagreement among the courts. Compare Cascade Health Solutions, 515 F.3d at 903, with LePage's, Inc. v. 3M, 324 F.3d 141, 154 (3d Cir. 2003) (en banc).
[^17]:    77. Compare Cascade Health Solutions, 515 F.3d at 903, with LePage's, 324 F.3d at 154.
    78. See generally Posner, supra note 27, at 236; Daniel Crane, Mixed Bundling, Profit Sacrifice, and Consumer Welfare, 55 Emory L.J. 423 (2006); Daniel Crane, Multiproduct Discounting: The Myth of Nonprice Predation, 72 U. ChI. L. Rev. 27 (2005); Lambert, supra note 7, at 1715; Nalebuff, supra note 58, at 321.
    79. For example, as it currently exists it is very difficult for antitrust plaintiffs to prevail. Thase who favor the minimization of government involvement may find this a desired outcome.
[^18]:    80. Herbert Hovenkamp, Distributive Justice and the Antitrust Laws, 51 Geo. Wash. L. Rev. 1, 31 (1982).
    81. See infra notes 82-113; see generally Albert O. Hirschman, Against Parsimony: Three Easy Ways of Complicating Some Categories of Economic Discourse, 37 Bull. Amer. Academy Arts \& SCIS. 11 (1984).
    82. Actually the general sense that market behavior is a simplistic and imprecise way to determine preferences extends much further back than 35 years. In 1954 economist Nicholas Georgescu-Roegen wrote: "While the theory of revealed preference has not yet fulfilled the claims of its initiator, namely, to derive the preference structure from actual market data, it inspired fruitful research which finally showed how little of the rationale of classical theory of choice is reflected by the market behavior."
    83. The sensitivity of consumers to fairness in pricing has be widely established, see Lisa Bolton et al., Consumer Perceptions of Price (Un)Fairness, 29 J. Consumer Res. 474 (2003); see Eric T. Anderson \& Duncan I. Simester, Does Demand Fall When Consumers Perceive that Prices are Unfair: The Case of Premium Pricing for Large Sizes, 27 Mктg. Sci. 492 (2008); see Margaret C. Campbell, Perceptions of Price Unfairness: Antecedents and Consequences, 36 J. Mktg. Res. 187 (1999); see Lan Xia et al., The Price is Unfair: A Conceptual Framework of Price Fairness Perceptions, 68 J. МктG. 1 (2004).
[^19]:    88. For discussions, see Ayelet Gneezy et al., Shared Social Responsibility: A Field Experiment in Pay-What-You-Want Pricing and Charitable Giving, 329 Science 325 (2010); JuYoung Kim et al., Pay What You Want: A New Participating Price Mechanism, 73 J. MktG. 44 (2009); Klaus M. Schmidt et al., Pay What You Want as a Marketing Strategy in Monopolistic and Competitive Markets, 61 MGMT. ScI. 1217 (2015).
    89. Gneezy et al., supra note 88 , at 326. Importantly, there was no evidence that increased spending on photographs reduced spending elsewhere in the amusement park. Id.
    90. Kim et al, supra note 88, at 51 . Even when the prices paid were lower it did not mean the strategy lowered sales. The lower price increased sales and had a promotional quality. $I d$. at 53. PWYW has also been employed by museums, online music, and in the sales of software. Schmidt et al., supra note 88, at 1217.
    91. See Kim et al., supra note 88, at 51 .
    92. Schmidt et al. supra note 88 , at 1222 . It should be noted that resistance to serious considerations of these new teachings may be confined to those interested primarily in antitrust economics. In fact, the American Economic Review, the most prestigious economics journal and one that is peer reviewed, routinely publishes articles about the fallibility of conventional economic assumptions and the implications for understanding modern behavior.
[^20]:    93. See Xia et al., supra note 83, at 6; Bolton et al., supra note 83, at 478.
    94. See, e.g., Robin Dawes \& Richard Thaler, Anomalies: Cooperation, 2 J. Econ. Persp. 187, 187 (1988); Werner Guth et al., An Experimental Analysis of Ultimatum Bargaining, 3 J. Econ. Behav. \& Org. 367, 384 (1982); Elizabeth Hoffman \& Matthew Spitzer, The Coase Theorem: Some Experimental Tests, 25 J.L. Econ. 73, 93-96 (1982); Daniel Kahneman et al., Fairness and the Assumptions of Economics, 59 J. Bus. S285, S299 (1986) [hereinafter Kahneman et al., Fairness and the Assumptions of Economics]; Daniel Kahneman et al., Fairness as a Constraint on Profit Seeking: Entitlements in the Market, 76 Am. Econ. Rev. 728, 729 (1968) [hereinafter Kahneman et al., Fairness as a Constraint on Profit Seeking]; Moses L. Pava et al., Fairness as a Constraint in the Real Estate Market, 19 J. Bus. Ethics 91, 92, 97 (1999); Matthew Rabin, Incorporating Fairness into Game Theory and Economics, 83 AM. ECON. REV. 1281, 1281; see generally Arthur Okun, Prices and Quantities: A Macroeconomic Anal.ysis 170 (1981).
    95. See Kahneman et al., Fairness and the Assumptions of Economics, supra note 94, at S299. See also, Raymond F. Gorman \& James B. Kehr, Fairness as a Constraint on Profit Seeking: A Comment, 82 AM. ECON. REV. 355, 355 (1992).
    96. Kahneman et al., Fairness as a Constraint on Profit Seeking, supra note 94, at 730.
    97. Id.
    98. Id.
    99. Id.
[^21]:    100. Kahneman et al., Fairness as a Constraint on Profit Seeking, supra note 94, at 735; see also OKUN, supra note 94.
    101. Kahneman et al., Fairness as a Constraint on Profit Seeking, supra note 94, at 28-29.
    102. Id. at 730 .
    103. Id.
    104. Id. at 736 .
    105. Id. at 734.
[^22]:    106. Id. at 736.
    107. Id. at 739.
    108. Kahneman et al., Fairness as a Constraint on Profit Seeking, supra note 94, at 736; Kaudhik Basu, A Theory of Association: Social Status, Prices and Markets, 41 Oxford ECON. PAPERS 653, 658 (1989) [hereinafter Basu, A Theory of Association].
    109. Kahneman et al., Fairness as a Constraint on Profit Seeking, supra note 94, at 736.
    110. Id.
    111. Basu, A Theory of Association, supra note 108, at 665.
[^23]:    112. Kahneman et al., Fairness as a Constraint on Profit Seeking, supra note 94, at 729.
    113. Id. at 736 .
    114. But not the only way. Rationing can be done by a host of means ranging from lottery to how long someone is willing to wait in line. Kahneman et al., Fairness as a Constraint on Profit Seeking, supra note 94, at 735.
    115. Basu, A Theory of Association, supra note 108, at 653.
    116. Barah Y. Orbach, Antitrust Vertical Myopia: The Allure of High Prices, 50 ArIz. L. Rev. 261, 277-78 (2008) [hereinafter Orbach, Antitrust Vertical Myopia].
    117. Id. at 278.
    118. Id. at 274.
    119. These are also referred to as "positional" goods because they denote a position in the status ranking. See Robert H. Frank, The Demand for Unobservable and Other Nonpositional Goods, 75 Am. Econ. Rev. 101, 101 (1985); Norman J. Ireland, On Limiting the Market for Status Signals, 53 J. PUB. ECON. 91, 91 (1994). For a different approach to this, see Orbach, Antitrust Vertical Myopia, supra note 116, at 277. In addition, high prices may lower the value of an item. For example, an auction of a Nobel Prize would render the prize worthless. Basu, A Theory of Association, supra note 108, at, 653-54.
    120. See Thorstein Veblen, Theory of the Leisure Class 33 (1899); Laurie Simon Bagwell \& B. Douglas Bernheim, Veblen Effects in a Theory of Conspicuous Consumption, 86 AM. ECON. REv. 349, 349 (1996); Robert L. Basmann et al., A Note on Measuring Veblen's Theory of Conspicuous Consumption, 70 Rev. Econ. \& Stat. 531, 531 (1988); Angela Chao \& Juliet B. Schor, Empirical Tests of Status Consumption: Evidence from Women's Cosmetics, 19 J. Econ.
[^24]:    Psychol. 107, 109 (1998).
    121. Jeffrey L. Harrison, Trademark Law and Status Signaling, 59 Fla. L. Rev. 195 n. 86 (2007). It may be logical to think the best Veblen goods are those that are generally regarded to be scarce and high priced but for which a buyer secretly pays less. As long as no one knows of the discount, the buyer may experience an extra element of consumer surplus. Of course the Veblen effect has led to an entire industry of counterfeit goods which serve the purposes, if well done, of achieving the extra consumer surplus. On the other hand, to the extent a thriving counterfeit market exists, the Veblen effect of all sales of a product is discounted. Obviously trademark law plays an important role in the ability to sell Veblen goods. See id at 199-202.
    122. Morgan K. Ward \& Darren.W. Dahl, Should the Devil Sell Prada? Rejection Increases Aspiring Consumers' Desire for the Brand, 41 J. Consumer Res. 590, 604 (2014). See also Ranier Romero-Canyas et al., Paying to Belong: When Does Rejection Trigger Ingratiation?, 99 J. Personality \& Soc. Psychol. 802, 811 (2010). This not to say all conspicuous consumption comes at a premium. In fact, a phenomenon also exists that might be identified as conspicuous nonconformity. People may purposely dress in informal clothes in contexts in which conformity might dictate business attire. It has been shown that this can be a source of status. See Silvia Bellezza et al., The Red Sneakers Effect: Inferring Status and Competence from Signals of Nonconformity, 41 J. CONSUMER RES. 35, 49 (2014).

[^25]:    126. Id. at 839-40.
    127. For a general discussion, see Kathleen D. Vohs et al., Feeling Duped: Emotional, Motivational, and Cognitive Aspects of Being Exploited by Others, 11 Rev. Gen. Psychol. 127, 133 (2007).
    128. A good workable definition of envy is "a negative attitude toward another person's superiority and the desire to gain what this person possesses." Aaron Ben-Ze'ev, Envy and Inequality, 89 J. Phil. 551, 552 (1992).
    129. See generally Niels van de Ven et al., The Envy Premium in Product Evaluation, J. Consumer Res. 984, 990 (2011). For an empirical work on the power of envy, see Steven R. Beckman et al., Envy, Malice and Pareto Efficiency: An Experimental Examination, 19 Soc. Choice \& Welfare 439, 465 (2002).
[^26]:    130. See George Stigler, The Theory of Economic Regulation, 2 Bell J. Econ. \& Mgmt. Sci. 3, 3-4 (1971). See also Jean-Jacques Laffont \& Jean Tirole, The Politics of Government Decision-Making: A Theory of Regulatory Capture, 106 Q. J. ECON. 1089, 1118 (1991).
    131. See generally Thomas Kuhn, The Structure of Scientific Revolution (1962 Revolutions), in International Encyclopedia of Unified Science 111 (Otto Neurath ed., 1970).
    132. See, e.g., Joshua D. Wright \& Judd E. Stone, Misbehavioral Economics: The Case Against Behavioral Economics, 33 Cardozo L. Rev. 1517, 1517 (2012).
[^27]:    133. There are arguments that markets will eventually work through the issues presented here. Any suggestion of that nature requires a host of assumptions that may not be accurate in the short run or ever.
    134. Woody Allen \& Marshall Brickman, Annie Hall, in Four Films of Woody Allen 105 (1982) (the joke goes like this: "I-I thought of that old joke, you know, this-this-this guy goes to a psychiatrist and says, 'Doc, uh, my brother's crazy. He thinks he's a chicken.' And, uh, the doctor says, 'Well, why don't you turn him in?' And the guy says, 'I would but I need the eggs.' Well, I guess that's pretty much how I feel about relationships. You know they're totally irrational and crazy and absurd and . . . but, uh, I guess we keep goin' through it because, uh, most of us need the eggs.").
    135. Jeffrey L. Harrison \& Amy R. Mashburn, Citations, Justifications, and the Troubled State of Legal Scholarship: An Empirical Study, 3 TEx. A\&M L. Rev. 45, 45 (2015).
[^28]:    136. See supra text accompanying note 54 .
    137. Sherman Antitrust Act 15 U.S.C.A. § 2 (2004) (addressing monopolization which requires the acquisition or maintenance of monopoly power through unfair means).
    138. This is a matter that has been treated at length elsewhere. See Harrison, supra note 121.
    139. See Markovits, Law \& Economics, supra note 44; Markovits, Monopoly Rent Seeking, supra note 44.
    140. There examples or not exactly second best issue but illustrate examples in which courts and enforcement agencies have been inclined to look further than the most obvious solutions.
    141. 15 U.S.C. § 17 (2016).
[^29]:    149. Examples of recent cases are In re NCAA I-A Litigation, Walk-On Football Players Litig., 398 F. Supp. 2d 1144, 1148 (W.D. Wash. 2005); Agnew v. NCAA, 683 F.3d 328, 332-36 (7th Cir. 2012).
    150. See Gabriel A. Feldman, The Misuse of the Less Restrictive Alternative Inquiry in Rule of Reason Analysis, 58 Am. U. LAW Rev. 561, 629-30 (2009).
    151. Technically, Sherman Anti-Trust Act, 15 U.S.C. § 1 (2004) only requires that agreements not restrain competition. There is no express requirement that they restrain competition as little as possible.
    152. See O'Bannon v. NCAA, 802 F.3d 1049, 1057, 1074 (9th Cir. 2015).
    153. This possibility was raised by the Supreme Court in Arizona v. Maricopa Cnty. Med. Soc'y, 457 U.S. 332, 353-55 (1982); see generally Jeffrey L. Harrison, Price Fixing, the Professions and Ancillary Restraints: Coping with Maricopa County, 1982 U. Ill. L. Rev. 925, 942 [hereinafter Harrison, Price Fixing].
    154. See generally Harrison, Price Fixing, supra note 153, at 943-44.
    155. One seemingly unresolved issue deals with the costs of the less restrictive alternative. A less restrictive alternative may be more expensive or mean higher transaction costs that presumably will be shared between the parties and buyers. This issue arose in the Maricopa County case. See Maricopa Cnty. Med. Soc'y, 457 U.S. 332, 353-54; see also Harrison \& Mashburn, supra note 135, at 58, 88.
    156. This issue is not confined to cases involving sports but can arise in any rule of reason analysis.
    157. These examples do not fit precisely the model of second best solutions. Nevertheless, they illustrate the myopia that can affect antitrust judges and enforcers.
    158. At some point the search costs exceed any possible saving with respect to price and the rational buyer accepts a higher price while knowing it is possible a lower one is available.
    159. See supra text accompanying notes 83-88. In particular it carries with it the assumption
[^30]:    that buyers prefer input suppliers to be exploited to the maximum extent possible.
    160. See supra text accompanying notes $\mathbf{8 3 - 8 8}$. There can be an exception. Presumably someone buying a status good would prefer to buy it at a lower price as long as they got it at a lower price is unknown to all others, and others are not similarly favored.
    161. Prices are set to sell the quantity of output at which marginal cost and marginal revenue intersect. Lower input prices mean lower costs of production. This lowers marginal cost meaning that the profit maximizing level of output is higher. Higher output means lower prices.
    162. The text lists a number of day-to-day observations that seem to disprove this "default" position. See supra text accompanying notes 83-88. More recently, objections have been made to the harvesting of shrimp under slave-like conditions. See also Oliver Holmes, EU Investigators to Decide on Thai Fishing Industry Ban Over Slave Labour, Guardian (Jan. 20, 2016), http://www.theguardian.com/world/2016/jan/21/eu-investigators-to-decide-on-thai-fishing-indus try-ban-over-slave-labour; Kevin McCoy, Slave-Peeled Shrimp Exported to Major U.S. Stores, USA TODAY (Dec. 15, 2015), http://www.usatoday.com/story/money/business/2015/12/14/slave-peeled-shrimp-exported-major-us-stores/77279762/.

[^31]:    164. See supra text accompanying notes 16-18.
    165. See Daniel Hausman, The Impossibilites of Interpersonal Utility Comparisons, MIND, 473 (July 1995); Peter J. Hammond, Interpersonal Comparisons of Utility: Why and How They Are and Should Be Made, in Interpersonal Comparisons of Well-Being 200 (Jon Elster \& John E. Roemer eds., 1991).
    166. It is normative in that it raises the question of whether the Kaldor-Hicks advances any morally supportable goal.
    167. This is still a form of Kaldor-Hicks efficiency since it is based on willingness to pay as opposed to actual utility.
    168. In a sense, the futuristic approach involves insurmountable transaction costs. Of course, Marty McFry was able to overcome these costs but it is rare.
    169. These rating systems are pervasive. Examples can be found on Amazon.com, Zappos.com, Walmart.com. In addition internet accessible cites have been created. In effect, they lower the transaction costs that separate decisional and experienced utility.
    170. Concealment by monopolists or by individual firms in competitive contexts are likely not reachable under current antitrust laws.
