A First Principles Approach to Antitrust Enforcement in the Agricultural Industry

Geoffrey A. Manne, International Center for Law & Economics
&
Joshua D. Wright, George Mason University School of Law
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I. INTRODUCTION

In March 2010, the Department of Justice (“DOJ”) and the United States Department of Agriculture began a series of workshops aimed at addressing competition policy issues facing the agricultural sector in the 21st century. While antitrust enforcement has a long history in the agricultural sector, the current workshops, combined with recent policy speeches by Antitrust Division officials and enforcement activity, suggest a reinvigorated regulatory interest in the sector. As Assistant Attorney General Christine Varney noted in her remarks kicking off the recent workshops, it is certainly true that competition policy in agriculture markets has some unique features that generate intense interest from a variety of economic and political stakeholders. Varney sensibly emphasized the unprecedented nature of the workshops:

This really is a historic undertaking. These workshops have brought together all the governmental agencies with a stake in the improvement of agricultural markets—Congress, the Department of Agriculture, the Department of Justice, the Commodity Futures Trading Commission, state executives and state law enforcement—and they have elicited an impressive level of popular engagement. We have received voluminous comments, and are extremely enthusiastic about the energy and initiative that all involved have shown in bringing these workshops together. It gives us confidence that we will be able to achieve our goal: a holistic and interdisciplinary look into how we can all work better, together, to strengthen and support fair and efficient markets in American agriculture.

There are very few industries that can attract the attention of Congress, multiple federal and state agencies, consumer groups, economists, antitrust lawyers, the business community, farmers, ranchers, and academics as the agriculture workshops have. Of course, with intense interest from stakeholders comes intense pressure from potential winners and losers in the political process, heated disagreement over how gains from trade should be distributed among various stakeholders, and certainly a variety of competing views over the correct approach to competition policy in agriculture markets.

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1 Geoffrey Manne is Executive Director, International Center for Law and Economics and Lecturer, Lewis & Clark Law School; Joshua Wright is Assistant Professor at George Mason University School of Law and Department of Economics and Director of Research, International Center for Law and Economics.


These pressures have the potential to distract antitrust analysis from its core mission: protecting competition and consumer welfare. The economic approach to antitrust that has generated remarkable improvements in antitrust over the last fifty years has rejected simplistic and misleading notions that antitrust is meant to protect “small dealers and worthy men,” fulfill non-economic objectives, that market concentration is a predictor of market performance, or that competition policy and intellectual property cannot peacefully co-exist.

Indeed, the economic approach is not without its shortcomings. Economic analysis that abstracts from real world conditions is a poor guide for policy in the real world:

While legal scholars typically avoid rigorous attempts to work through the available economic theory and evidence when discussing the optimal design of legal rules, economists frequently fail to assess their analyses in a realistic institutional setting and avoid incorporating the social costs of erroneous enforcement decisions into their analyses and recommendations for legal rules.\(^5\)

In the case of antitrust analysis in the agricultural sector the admonition is particularly significant. Perhaps no industry in the United States is more politicized than the agricultural industry. For this reason, it can and should be expected that optimal antitrust enforcement in theory will little resemble actual antitrust enforcement in practice, and evidence-based policy prescriptions must account for the substantially increased risk of antitrust error.

Unfortunately, in the run-up to and during the workshops much of the policy rhetoric encouraged adopting these rejected approaches, especially one that would favor one group of stakeholders over another rather than protecting the competitive process. In this essay, we argue that a first principles approach to antitrust analysis is required to guarantee the benefits of competition in the agricultural sector, and discuss three fundamental principles of modern antitrust that, at times, appear to be given short-shrift in the recent debate.

**II. PRINCIPLE #1: ANTITRUST OPERATES BEST WHEN IT FOCUSES EXCLUSIVELY ON CONSUMER WELFARE AND NOT POLITICAL OBJECTIVES**

As we write, the Department of Justice and the Department of Agriculture are in the midst of a year-long series of workshops on antitrust in the agricultural sector. The first of these workshops, on “Issues of Concern to Farmers,” drew a who’s-who of political luminaries, including, among others, a U.S. senator, the Iowa Attorney General, two cabinet-level officials (the U.S. Attorney General and the Agriculture Secretary) and, of course, the head of the DOJ’s Antitrust Division, Christine Varney. This remarkable showing was not a testament to the fascinating antitrust issues facing farmers today, but rather to the enormous political salience of the issues involved.

Unfortunately, even the antitrust experts among this group demonstrated a greater devotion to the politics than to the antitrust economics. As Varney noted at the close of her initial remarks:

So you have my commitment that we’re going to do everything we can to make sure that it’s a competitive agriculture economy, that farmers, growers, packers,

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processors, are all making a decent wage, and we’re getting American consumers food on their table that’s safe and healthy and a decent price.6

One would look in vain in the antitrust case law for indications of the antitrust relevance of food safety, nutritional content, and wage fairness. These are political concerns, animated by pressures for outcomes that have little to do with maximizing consumer welfare, and more to do with responding to particular political constituencies. While the case law and experienced agency staff are bulwarks against the wholesale politicization of antitrust policy in this industry, the relevant concern is the marginal one: The extent to which traditional tools of analysis are constrained for the benefit of political outcomes, and the extent to which the institutional environment increases the error costs of antitrust enforcement, even when it deploys analysis that is appropriate in the abstract.

Underscoring the point, the Attorney General drew a direct parallel between antitrust enforcement and the sort of non-economic concerns that are the province of politicians:

And the overriding concern we have in the Justice Department is maintaining fairness. Doesn’t mean we’re going to put our thumb on the scale. We want everybody to have a fair shot. I think Senator Grassley is right. As Christine indicated, you know, big is not necessarily bad, but big can be bad if the power that comes from being big is misused, and that is simply not something that this Department of Justice is going to stand for. We will use every tool that we have to ensure fairness in the marketplace.7

It is difficult enough, particularly in a heavily politicized institutional environment, to distinguish between pro- and anti-competitive conduct even using the most advanced economic tools. Antitrust analysis is at its best, however, when it focuses on consumer welfare rather than non-economic, political, or unspecified objectives like “fairness.” For all its imperfections, economics has made antitrust analysis—and thus the economy it regulates—more stable. But when antitrust enforcers purport to be promoting some undefined conception of fairness—or making sure that the country eats its vegetables—the restraining influence of fairly-well-specified and quantitative analysis is minimized, permitting mercurial institutional incentives to dominate instead, to the detriment of overall economic welfare.

In the agricultural sector, as we will discuss, the primary consequence of this shift is to reduce the influence of 35 years of economics and jurisprudence reflecting the realization that market concentration is a poor predictor of anticompetitive effect.8 Instead, where concentration leads inexorably to (at least short-term) unemployment in agricultural sectors, the political incentive to protect farm jobs dominates, leading to a misplaced focus on increased concentration and a substantial risk of erroneous, costly antitrust enforcement. The modern consensus holds firmly that it is not the appropriate role of antitrust to protect the fortunes of these “small dealers and worthy men,”9 but the defining characteristic of antitrust rhetoric—and enforcement—in the agriculture sector is precisely that. The risk of erroneous over-enforcement by political institutions in this environment is high, and familiar decision-theoretic arguments for restraint are essential.

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7 Transcript, supra note 5, at 56 (remarks of Attorney General Eric Holder).


9 U.S. v. Trans-Missouri Freight Ass’n, 166 US 290, 323 (1897).
III. PRINCIPLE #2: MARKET CONCENTRATION IS A POOR PREDICTOR OF MARKET PERFORMANCE

Perhaps one of the most established first principles of modern antitrust analysis is that market concentration alone is a notoriously poor predictor of market performance. “Big is bad,” without more, is no longer a coherent claim of likely antitrust harm. This revelation is not new. Consider, for example, the evolution of the body of economic knowledge concerning the relationship between market concentration and price. The late 1950s and early 1960s were a period of time in which state of the art economic analysis viewed the problem of market concentration and oligopolistic collusion as the “principal defect of present antitrust law.”10 Scholars urged Congress to pass new legislation aimed at reducing market concentration across the economy and a, White House Task Force Report on Antitrust Policy endorsed various forms of such proposals.11 Kovacic & Shapiro have described the era producing well known and universally criticized decisions like Vons, Federal Trade Commission v. Procter & Gamble Co.,12 United States v. Pabst Brewing Co.,13 and Brown Shoe Co. v. United States14 as exhibiting “considerable consistency between judicial decisions and economic thinking.”15

Despite that history, it is now well-established in modern merger analysis, whether the unilateral effects or coordinated effects theories are involved, that the key economic question with regard to mergers is whether the reduction in the number of independent competitors in the particular case changes post-merger pricing incentives. It was not always so. Former Chairman and current Professor Timothy Muris has described the history in the context of a possible Federal Trade Commission investigation of the automobile industry:

A crucial analytical basis for the staff’s critique was the simple market concentration doctrine—the belief that concentration and economic performance were closely and inversely correlated. Had the year been 1966, a Commission decision to embrace this belief would have been more understandable. In 1966, the view that high levels of concentration inevitably degraded economic performance commanded considerable academic support. Many commentators saw the American automobile industry, dominated by General Motors for decades, as the paradigm example. Ten years later, however, there was serious reason for the FTC to doubt the validity of the simple market concentration hypothesis or to presume the invincibility of U.S. producers. By 1976 the academic consensus condemning market concentration was crumbling. As discussed in more detail below, changes in economic theory and, more importantly, empirical research had undermined the simple concentration hypothesis.16

Perhaps the most significant contributions to the literature undermining the simple market concentration doctrine underlying the structure-conduct-performance (“SCP”) paradigm

12 386 U.S. 568 (1967).
often associated with Joe Bain came from UCLA economist Harold Demsetz, who produced a compelling efficiency explanation for the observed relationship between concentration and price. Specifically, Demsetz contended that superior efficiency rather than collusive conduct was the likely explanation for the observed relationship between concentration and profitability.

The addition of new economic learning on market concentration and price was followed by a correction in horizontal merger doctrine (the Horizontal Merger Guidelines) which improved matters relative to the Warren Court days, and led to a current state of affairs in merger analysis in which Judge Posner describes infamous decisions relying on “big is bad” logic as “largely forgotten . . . through never expressly overruled,” replaced by evidence-based decisions such as FTC v. Staples, which represent the “com[ing] of age” of the economic analysis of mergers. Indeed, the enforcement agencies’ most recent proposed Horizontal Merger Guidelines continue the trend away from reliance on market shares as a predictor of post-merger pricing and market performance, noting that the market definition exercise, from which the Agencies calculate shares, is only useful “to the extent it illuminates the merger’s likely competitive effects” and that “some of the analytical tools used by the Agencies to assess competitive effects do not rely on market definition.”

Despite this economic consensus on the role that market concentration alone plays in competition analysis, the agricultural antitrust debate is replete with references that adopt implicitly or explicitly a presumption that “big is bad.” Of course, economists have conducted serious study of the issue of concentration in agriculture markets in an attempt to shed empirical light on the issue. For example, the Government Accountability Office conducted a study in which they concluded that there is no evidence that concentration has had any adverse price effects on commodities or consumer producers. An evidence-based antitrust approach to the agricultural sector would be wise to consider the existing evidence and give little if any weight to complaints about increasing concentration as an antitrust concern in its own right.

IV. PRINCIPLE #3: COMPETITION POLICY AND INTELLECTUAL PROPERTY WORK TOGETHER TO FACILITATE DYNAMIC EFFICIENCY

The tensions between antitrust and intellectual property have been a frequent subject of debate by legal scholars, economists, and courts. Conventional wisdom was that antitrust promotes competition and patent law promotes monopoly and, therefore, the two are properly viewed as serving conflicting goals. For much of the twentieth century, courts and enforcement agencies viewed intellectual property as creating a monopoly and antitrust case law encouraged

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20 Government Accountability Office, *Agricultural Concentration and Agricultural Commodity and Retail Food Prices* (GAO-09-746R), *available at: http://www.gao.gov/new.items/d09746r.pdf*. The GAO Report concludes that: “The empirical economic literature has not established that concentration in the processing segment of the beef, pork, or dairy sectors or the retail sector overall has adversely affected commodity or food prices.”
21 This section is based on a submission the authors submitted, along with two co-authors, to the DOJ/USDA Workshops. See F. Scott Kieff, Geoffrey A. Manne, Michael E. Sykuta, & Joshua D. Wright, *Comment to the Comments Regarding Agriculture and Antitrust Enforcement Issues in Our 21st Century Economy*, *available at: http://www.laweconcenter.org/images/articles/doi_ag_submission.pdf*. 
that presumption. Through the 1970’s, the infamous “Nine No-No’s” approach to intellectual property embedded that skepticism into enforcement decisions and judicial thinking about intellectual property and antitrust.

Here again, economic learning soon would change matters. The Antitrust Modernization Committee Report (“AMC Report”) notes the dramatic reversal that would take place over the next several decades:

The influence of economic learning about the competitive benefits of intellectual property and the potential efficiencies of intellectual property licensing and other conduct reversed this trend. In 1981 the Chief of the Intellectual Property Section of the Antitrust Division explained that because patents increase the reward for research and development, inventions are produced that otherwise would not have come about (or would not have come about as quickly); in those cases, “the availability of a patent [serves] only to benefit competition— to make additional or less expensive choices available to consumers.” In 1981 officials from the DOJ renounced the Nine No-Nos. The 1995 Antitrust Guidelines for the Licensing of Intellectual Property (DOJ/FTC IP Guidelines), issued jointly by the DOJ and the Federal Trade Commission (FTC), take the view that “intellectual property licensing . . . is generally procompetitive” and should be examined under the rule of reason.22

The AMC Report goes on to accurately capture the modern consensus on the relationship between antitrust and intellectual property rights, noting that:

Courts and the antitrust agencies in recent decades have evidenced a greater appreciation of the importance of intellectual property in promoting innovation and, accordingly, the need to incorporate this recognition into a dynamic analysis of competitive effects. Witnesses and commentators remarked there is an improved understanding that antitrust law and patent law are complementary, with both seeking to encourage innovation and competition.23

Indeed, economic learning would teach that any conflict between antitrust and intellectual property arises only when analyzing a single aspect of the use/creation tradeoff without regard to the overall impact on social welfare.24 Modern consensus is that antitrust and intellectual property rights are not only compatible, but complementary doctrines with the shared economic goal of maximizing innovation and dynamic efficiency.25

Thus, the modern antitrust view of the intersection of antitrust and intellectual property rules is that they “are actually complementary, as both are aimed at encouraging innovation, industry, and competition.”26 For example, former Federal Trade Commission Chairman Muris

23 Id. at 38-39.
25 See Verizon Communications, Inc. v. Law Offices of Curtis Trinko, LLP, 540 U.S. 398 (2004) (“The opportunity to charge monopoly prices— at least for a short period— is what attracts ‘business acumen’ in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.”).
has explained that when “properly understood, IP law and antitrust law both seek to promote innovation and enhance consumer welfare.”27 In light of this recognition of the complementary goals of antitrust and intellectual property to maximize dynamic efficiency and innovation, the primary challenge in this area is to design rules that foster competition and innovation and provide a backstop which prohibits clearly socially undesirable activity without deterring innovation.

One powerful example of this approach has been in the shift in antitrust treatment of licensing from the aforementioned Nine No-No approach of prohibiting as per se illegal various licensing practices to the modern rule of reason approach.28 In addition to the elimination of these per se restrictions, and the elimination of the market power presumption in patent tying cases, the Supreme Court has also relaxed the per se prohibition against minimum resale price maintenance in favor of an effects-based, rule of reason approach that takes into account the economic theory and empirical evidence suggesting that such licensing arrangements are generally pro-competitive.29 Overall, these changes in antitrust evaluation of patents and licensing arrangements demonstrate a shift that reflects increased recognition of the social value of patents and contractual arrangements between intellectual property rights holders and licensees.

Despite this shift in policy, the attention of the antitrust enforcement community has been focused intently on the licensing of intellectual property in the seed industry. Biotech seeds “have become an enormously valuable part of the food supply in the United States and abroad. A substantial portion of soybeans, corn, cotton, and other agricultural products grown in the United States are derived from these genetically-modified (“GMO”) seeds. The genetic traits that give these seeds their value—traits that, for example, confer resistance to herbicide and/or produce high yields—are often developed by large agribusiness companies, with enormous research and development investments. The process is technologically advanced, time- and money-intensive, a risky investment, and subject to various layers of regulation. The process of developing a new seed variety can take 15 years and require hundreds of millions of dollars of investment. Regulations from the USDA, the FDA, and the EPA can slow or halt the process, and international trade regulations (particularly from countries that ban or severely restrict importation of GMOs) complicate the control and the commercialization of the final products.

In part for these reasons, the biotech seed industry—like all segments of the U.S. agricultural industry—has seen a substantial increase in concentration. Large scale is of obvious benefit to companies engaged in massively expensive R&D programs that can achieve economies of scale and thus lower costs. Meanwhile, there are also likely other vertical efficiencies associated with contractual arrangements between various players in the transgenic supply chain:

Vertical efficiencies such as reduced transactions costs and coordination achieved by exploiting the complementarities between traits and traited seed assets can also reduce costs. Closer, more precise coordination between levels in the transgenic

MASON L. REV. 429, 429 (2002) (“Intellectual property and antitrust laws share a common objective—to encourage innovation, industry, and competition.”).


28 ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, at § 3.4 (1995) (indicating that the agencies will use the rule of reason except for exceptional circumstances warranting per se treatment).

supply chain may result in more efficient creation of new transgenic varieties in increasingly differentiated product markets.\textsuperscript{30}

Thus it is not surprising that the period of increasing innovation has been accompanied with an increase in concentration as innovating firms assembled the necessary complementary assets to develop and commercialize their innovations, often through vertical and horizontal mergers and acquisitions.\textsuperscript{31} The remarkable gains in biotech seed development since the industry’s infancy less than 20 years ago, along with the complexities of the industry and our limited understanding of the economic significance of organizational choices in the industry, should counsel strongly against hasty antitrust intervention in the industry. Consumers enjoy significant benefits from innovation that must be considered before responding too quickly or improperly to complaints about increased concentration, especially if the complaints come primarily from competitors.

Antitrust criticism of the U.S. seed industry is often directed at Monsanto, and most of this criticism comes from a handful of competitors. The American Antitrust Institute’s white paper, for example, goes to great length to point out increasing concentration in the seed industry, and to try to explain away increases in innovation that have occurred at the same time. But a clear picture of the industry does show that patents are fairly evenly distributed among competitors, and that Monsanto has a less-than-dominant share in certain crops (soybeans, for example). Pioneer (owned by DuPont, Monsanto’s principle rival) has a large and growing share of the soybean and corn biotech seed markets, and that innovation continues apace, with forthcoming (allegedly) advances not only in pest resistance and yield, but in nutritional content as well.

The complained-of licensing practices, meanwhile, have well-established pro-competitive justifications. Field-of-use restrictions are contractual provisions that enable a licensor to divide the rights to its technology, allowing it to allocate production more efficiently among licensees and allowing the licensor to ensure optimal use and branding of its property. As Hovenkamp, Janis, & Lemley, make clear: “[e]xcept in unusual circumstances, field-of-use restrictions are not troubling from a competitive perspective.”\textsuperscript{32}

In the case of Monsanto’s licenses, the restrictions found in licenses to competitors prevent competitors from developing seed traits with similar functions to the licensed traits and incorporating them together into their own products. One obvious pro-competitive intent is to maintain quality control, where a user of the seed would be unable to tell if any bad—or good—functioning was attributable to the Monsanto seed trait or not. Of particular relevance, Monsanto does not—at least in its contract with DuPont that is the subject of the two companies’ ongoing patent dispute and the source of many of these allegations—restrict the stacking of its traits with other traits that perform different functions. The restrictions only concern those traits developed by other companies that purport to perform the same function (in the case under despite, providing resistance to Monsanto’s Roundup herbicide).

\textsuperscript{30} Diana L. Moss, \textit{Transgenic Seed Platforms: Competition Between a Rock and a Hard Place?}, American Antitrust Institute White Paper (October 23, 2009), available at \url{http://www.antitrustinstitute.org/Archives/seed.ashx}.

\textsuperscript{31} \textit{Id.} at Figure 2. While Moss happens to conclude that this inverse correlation is a surprise and struggles to find explanations for the seeming contradiction, the proffered explanations are unpersuasive (or irrelevant). \textit{See} Nicholas Kalaitzandonakes & Bruce Bjornson, \textit{Vertical and horizontal coordination in the Agro-biotechnology industry: Evidence and implications}, 29 J. AG. AND APPL. ECON. 129 (1997) for a more relevant analysis of industry forces.

\textsuperscript{32} \textit{HERBERT HOVENKAMP, ET AL., IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW §3.3b5.}
At the same time, anti-stacking restrictions can help to preserve a patent holder’s ability to compete in other markets, ensuring that its own intellectual property is not used to preclude it from competition in other areas or, in the case of seeds, with newer traits or combinations of traits. The extent to which Monsanto licenses its intellectual property to competitors is striking, and field-of-use restrictions are essential to this widespread distribution of Monsanto’s innovation. “In sum, one would not ordinarily expect output under a license-plus-field-of-use restriction to be less than output with no license at all, and it could be significantly greater.”

V. CONCLUSION

One central lesson taught by economics and political science is that there are a set of basic questions we should ask when thinking about how to structure laws for governing market players using legal systems like antitrust and patent. Modern antitrust analysis has successfully incorporated insights from economics and empirical evidence to dramatically improve the quality and stability of competition policy. The consensus that has emerged around the three principles discussed here—that antitrust policy is best executed when it focuses exclusively on competition and not political goals, that market concentration is a poor basis for antitrust policy, and that intellectual property licensing does not create “special” antitrust problems—has facilitated that dramatic improvement.

Regulators should be skeptical of calls for competition policy that calls for deviation from these first principles. This admonition is particularly significant in the agriculture sector given the highly politicized nature of policy debates in this area. While it would be naïve to believe that political pressures imposed on enforcement agencies would have zero impact on policy, sticking to these evidence-based, tried and true first principles minimizes the risk that consumers bear the cost of political interference.

33 HERTBERT HOVENKAMP, ET AL., IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW (2004 SUPP.) at §33.4.