Washington and Lee Law Review

Volume 61 | Issue 1 Article 2

Winter 1-1-2004

Conservation Through Collusion: Antitrust as an Obstacle to Marine Resource Conservation

Jonathan H. Adler

Conservation Through Collusion: Antitrust as an Obstacle to Marine Resource Conservation

Jonathan H. Adler*

Table of Contents

---

* Assistant Professor of Law, Case Western Reserve University School of Law. Portions of this Article were prepared for the Political Economy Forum on *Evolving Property Rights in Marine Fisheries* (Political Economy Research Center, March 21–24, 2002). The author would like to thank Arthur Austin, Michael DeAlessi, George Dent, Peter Gerhart, Douglas H. Ginsburg, Donald Leal, Dean Leuck, Andrew P. Morriss, Dale Nance, and Ann Southworth for their comments and critiques, along with those who participated in faculty workshops at the University of San Diego School of Law and Saint Louis University School of Law. Additional thanks are due to Katherine Gibbons, Elizabeth Nowak, and Lisa Peters for their valuable research assistance. Any errors or omissions are solely the fault of the author. This Article is dedicated to the memory of Professor Wesley J. Liebeler, 1931–2002.

I. Introduction

In the 1930s, Frank Manaka sought work as a fisherman off the coast of Monterey, California. He chartered a boat but was unable to fish or market his catch. Local canneries would not purchase fish from him. In 1940, he filed suit against the Monterey Sardine Industries, Inc., a cooperative association of fishing boat owners, and the Del Mar Canning Company for allegedly conspiring to set prices and restrict entry into the California sardine fishery.[1] Under an agreement between the association, the local canneries, and the local fishermen's union, the association set the price for which its members' fish were sold to canneries and reduction plants.[2] The canneries, in turn, agreed to purchase fish exclusively from members of Monterey Sardine assigned to them by the association. Manaka was not a member, so he could not sell his fish.[3]

Although Monterey Sardine may have operated like the typical collusive cartel, it served both pecuniary and conservation purposes. On the one hand, it increased members' profits by restricting entry by nonlocal fishers and increasing fish prices. On the other, it helped to conserve fish stocks by limiting the harvest.[4] Challenged by Manaka, the court found Monterey Sardine Industries guilty of conspiracy in restraint of trade under the Sherman Act.[5] The federal district court noted that the association was "not freed from the restrictive provisions of the anti-trust act" merely because they sought "the conservation of important food fish."[6] In other words, the association's conduct was no less exclusionary because it served, in part, to conserve fish stocks.

In the 1930s, the California sardine fishery was at its peak, yielding over 500,000 tons of fish per year.[7] By the early 1950s, the annual catch had dropped to under 20,000 tons, as the fishery began to collapse; "the pressures on the fishery were too great, and by 1952 for all practical purposes, the

---

1. *See* Manaka v. Monterey Sardine Indus., Inc., 41 F. Supp. 531, 532 (N.D. Cal. 1941) (describing Manaka's suit against Monterey Sardine Industries, Inc. and Del Mar Canning Company that alleged a conspiracy to restrain him from fishing and marketing his products).

2. *See id.* at 533–34 (discussing collusive arrangement between Monterey Sardine, local canneries, and the fishermen's union).

3. The association later offered Manaka an assignment that would enable him to sell fish in Monterey after another boat was "disabled." *Id.* at 534–35.

4. By the time of this litigation, the state of California had already adopted some fishery conservation regulations. *Id.* at 533. These controls would eventually prove inadequate.

5. *Id.* at 536. *See generally* 15 U.S.C. §§ 1–7 (2000) (introducing the Sherman Act).

6. *Manaka*, 41 F. Supp. at 534.

7. *See* GARY D. LIBECAP, CONTRACTING FOR PROPERTY RIGHTS 76 (1989) (describing the California sardine industry).

commercial sardine fishery was finished."[8] It is possible that the sardine fishery's collapse was unavoidable. Commercial harvesting might have depleted the fishery even if Monterey Sardine Industries' collusive arrangement had been permitted to survive. Likewise, changing environmental conditions might have made the collapse inevitable.[9] Then again, perhaps if it were not for antitrust enforcement, this tragedy of the marine commons might have been avoided.

Although it is not a new environmental problem, overfishing is arguably one of the most serious environmental problems today.[10] Despite decades of government regulation, fisheries are in trouble the world over.[11] "Forty-five years of increasing fishing pressure have left many major fish stocks depleted or in decline," reports the World Resources Institute.[12] Approximately 65% of

---

8. *Id.* at 76–77; *see also* Harry N. Scheiber, *Success and Failure in Science-Policy Interactions: Cases from the History of California Coastal and Ocean Studies, 1945–73, in* IMPROVING INTERACTIONS BETWEEN COASTAL SCIENCE AND POLICY 98, 101 (1995) (noting the California sardine fishery's "devastating crisis" and "catastrophic collapse" and the failed efforts to impose more stringent catch limits).

9. *See, e.g.*, Francisco P. Chavez et al., *From Anchovies to Sardines and Back: Multidecadal Change in the Pacific Ocean*, 299 SCI. 217, 217–20 (2003) (discussing the impact of climatic changes on sardine and anchovy populations). *But see* John G. Williams, *Sardine Fishing in the Early 20th Century*, 300 SCI. 2032 (2003) (attributing sardine fishery collapse to overharvesting); Francisco P. Chavez et al., *Response*, 300 SCI. 2033 (2003) (responding to Williams).

10. Indeed, fishery depletion is one of the few issues upon which apocalyptic environmentalists and their critics agree. For example, the Worldwatch Institute reports:

> Many populations of fish are in exceptional peril. More than ever, there is an urgent need to change the way fisheries are managed. Without reforming the underlying causes of overfishing—namely overcapacity and open access—fisheries and fishers are doomed to a desperate future.

Anne Platt McGinn, *Promoting Sustainable Fisheries, in* WORLDWATCH INST., STATE OF THE WORLD 1998, at 59–60 (Linda Storke, ed. 1998). Bjørn Lomborg, who is otherwise quite dismissive of Worldwatch Institute projections, largely accepts that fisheries are in serious trouble. *See* BJØRN LOMBORG, THE SKEPTICAL ENVIRONMENTALIST: MEASURING THE REAL STATE OF THE WORLD 106–08 (2001) (acknowledging that numerous ocean fisheries are overfished and suffering declining yields, and that future increases in fish production will come from aquaculture and fish-farming rather than ocean fisheries); *see also* Ronald Bailey, *Prologue: Environmentalism for the Twenty-first Century, in* THE TRUE STATE OF THE PLANET 4 (Ronald Bailey ed., 1995) (discussing overfishing as an environmental problem exemplifying the tragedy of the commons phenomenon).

11. Fishery economist Ralph Townsend notes that "the overall state of the world's fisheries is much worse today than 45 years ago, even though most fisheries have come under government regulation in this period." Ralph Townsend, Producer Organizations and Agreements in Fisheries: Integrating Regulation and Coasian Bargaining 222 (prepared for the Political Economy Research Center's Political Economy Forum "Evolving Property Rights in Marine Fisheries," Big Sky, Montana, Jan. 2002) (unpublished manuscript, on file with author).

12. WORLD RESOURCES INSTITUTE, DIMINISHING RETURNS: WORLD FISHERIES UNDER

fisheries are fully exploited or overexploited, according to the United Nations Food and Agriculture Organization (FAO), and the number of overexploited fish stocks continues to climb.[13] An additional 10% of fisheries are "significantly depleted" or are producing less than their potential because they are recovering from depletion.[14] Canada closed its Atlantic cod fishery in 1992 when stocks were on the verge of collapse. Ten years later, some stocks are "barely recovering,"[15] and others need to be closed again.[16] Fisheries scientists recommended a similar ban on European catches of Atlantic cod in 2002.[17] Although global fish production has increased significantly over the past three decades, much of this increase has come from an expansion of aquaculture as production from capture fisheries has leveled off since the 1990s.[18] The rest is an artifact of "massive over-reporting" of fish catches by the People's Republic of China.[19] Moreover, there is increasing concern that efforts to maintain catch quantity is diminishing catch quality and undermining fishery sustainability.[20]

PRESSURE (2000), *available at* http://www.wri.org/trends/fishloss.html (last modified July 20, 2000).

13. *See* FISHERIES DEP'T, U.N. FAO, THE STATE OF WORLD FISHERIES AND AQUACULTURE 2002, at 22–23 (2002) (stating that the number of fully exploited fish stocks in the world is relatively stable at 47%, while the number of overexploited stocks stands at 18% and continues to rise steadily).

14. *See id.* at 23 (discussing the depletion of the world's fish stocks).

15. *See Canada Looks at Further Cuts to Ailing Cod Fishery*, *at* http://www.enn.com /news/wire-stories/2002/11/11212002/reu_48998.asp (Nov. 21, 2002) (describing the depletion of stocks of cod in the Atlantic and the effect of such depletion on the Canadian fishing industry) (on file with the Washington and Lee Law Review).

16. *See* Quirin Schiermeier, *Europe Dithers as Canada Cuts Cod Fishing*, 423 NATURE 212, 212 (2003) (stating that in April 2003, the Canadian fisheries ministry ordered an end to all cod fishing in several regions along the Atlantic coast).

17. *See* David Malakoff & Richard Stone, *Scientists Recommend Ban on North Sea Cod*, 298 SCI. 939, 939 (2002) (discussing recommended ban on cod fishing in the North Sea and other historic fishing grounds). *See generally* Schiermeier, *supra* note 16, at 212.

18. U.N. FAO, *World Fisheries: A Choice of Futures*, *in* WORLD AGRICULTURE: TOWARDS 2015/2030, SUMMARY REPORT 38, 39 (2002), *available at* http://www.fao.org/docrep /004/y3557e/y3557e00.htm. Aquaculture production, also known as "fish farming," has more than doubled in the last fifteen years and now accounts for over one-quarter of human fish consumption. Rosamond L. Naylor et al., *Effect of Aquaculture on World Fish Supplies*, 405 NATURE 1017, 1017 (2000).

19. *See* Daniel Pauly et al., *Towards Sustainability in World Fisheries*, 418 NATURE 689, 691 (2002) (noting that once China's over-reporting is corrected, fishery landings have been declining since the late 1980s).

20. Fishery scientists believe that the commercial fish catch is shifting "down" the food web from larger fish to smaller fish and invertebrates. As a result, the open sea fish catch accounts for a declining share of table fish consumption and overall fishery sustainability is threatened. *See* Daniel Pauly et al., *Fishing Down Marine Food Webs*, 279 SCI. 860, 860–63 (1998) (discussing the move in global fishing over the past forty-five years towards harvesting

According to one recent study, stocks of large ocean fish species have dropped to 10% of their historic levels due to overfishing.[21]

On the open seas, overcapacity is the norm, leading to what many describe as "too many boats chasing too few fish."[22] The plight of domestic fisheries is no less grave.[23] The National Marine Fisheries Service (NMFS) reported that in 2002, sixty-six fish stocks were subject to overfishing, and another eighty-six species were already overfished.[24] In the same report, NMFS acknowledged that out of the 932 fish stocks under federal management, the status of nearly 700 is unknown.[25] While NMFS reports the number of healthy fish species has increased in recent years, such gains have come at a tremendous cost to local fishing communities faced with fishery closings and other stringent conservation measures.[26] Populations of once abundant food fish such as cod, haddock, and flounder may be near collapse.[27]

With little doubt, the federal fishery regulations adopted in the last twenty-five years have failed to ensure sustainable utilization of U.S. fisheries.[28] The

---

smaller invertebrates and planktivorous fishes); *see also* J.F. Caddy et al., *How Pervasive is "Fishing Down Marine Food Webs"?*, 282 SCI. 1383, 1383a (1998) (disputing Pauly's findings); Daniel Pauly, *Response*, 282 SCI. 1383, 1383a (1998) (responding to Caddy et al.).

21. *See* Ransom A. Myers & Boris Worm, *Rapid Worldwide Depletion of Predatory Fish Communities*, 423 NATURE 280, 280 (2003) (stating the results of a study on the exploitation of large predatory fish in the world's oceans). *See generally* Daniel Pauly & Reg Watson, *Counting the Last Fish*, SCI. AM., July 2003, at 42.

22. *See, e.g.*, ENVIRONMENTAL DEFENSE, INDIVIDUAL FISHING QUOTAS: AN IMPORTANT MANAGEMENT TOOL TO PROMOTE SUSTAINABLE FISHERIES, *available at* http://www.environmentaldefense.org/documents/1969_IFQBrief4.pdf (last visited Jan. 17, 2004) (using the phrase to describe a potential problem); James Sanchirico & Richard Newell, *Catching Market Efficiencies*, RESOURCES, Spring 2003, at 8, 8 (same).

23. *See generally* PEW OCEANS COMM'N, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE (2003), *at* http://www.pewoceans.org/oceans/index.asp (on file with the Washington and Lee Law Review).

24. OFFICE OF SUSTAINABLE FISHERIES, U.S. DEP'T OF COMMERCE, SUSTAINING AND REBUILDING: NOAA 2002L REPORT TO CONGRESS ON THE STATUS OF THE U.S. FISHERIES 17–18 tbl.1 (2003), *available at* http://www.nmfs.noaa.gov/sfa/reports.html.

25. *See id.* (stating that out of a total of 932 federally managed fish stocks, the services could not determine whether 695 of the stocks were overfished).

26. *See, e.g.*, Colin Nickerson, *Violence, Bureaucracy Hobble Canada's Struggling Fisheries*, BOSTON GLOBE, June 21, 2003, at A1 (noting social unrest caused by fishery closures); Noel C. Paul & Christian Scripter, *'Mayday' from New England's Coast*, CHRISTIAN SCI. MONITOR, Apr. 29, 2002, Work & Money, at 15 (describing the detrimental effects of efforts to rejuvenate fish stocks on New England's fishing communities).

27. *See* Bob Holmes, *Biologists Sort the Lessons of Fisheries Collapse*, 264 SCI. 1252, 1252 (1994) (discussing the scientific debate over the causes and effects of fishery collapse).

28. Although U.S. fisheries are among the most regulated in the entire world, they remain in dire shape. Josh Eagle & Barton H. Thomson Jr., *Answering Lord Perry's Question: Dissecting Regulatory Overfishing*, 46 OCEAN & COASTAL MGMT. 649, 650 (2003).

existing regulatory framework is "a failed experiment that has led to the destruction of United States coastal fisheries."[29] At the same time that the federal government adopted an elaborate regulatory structure, federal law has impeded the development of cooperative fishery management institutions that may have helped address fishery decline. Specifically, antitrust law has condemned arrangements, such as the one created by Monterey Sardine Industries, that could help ensure fishery sustainability by limiting catches.

This Article explores the tension between antitrust principles and conservation of the marine commons. Part II provides an overview of fishery conservation efforts in theory and practice. As a common pool resource, marine fisheries will fall prey to the "tragedy of the commons" unless consumption is limited to sustainable levels—whether through property rights, community norms, or government regulation. Part III briefly explains the antitrust concerns raised by efforts to restrict output, fix prices, or allocate territories. Although each of these actions may, in specific circumstances, facilitate conservation efforts, they are each presumptively suspect under antitrust law. Part IV explores the conflict between conservation and antitrust in fisheries, focusing on cases where competitors or government officials sought to prosecute fishing unions and other cooperative fishery organizations for antitrust violations. These cases illustrate that collective efforts by fishers to control exploitation of underlying resources are presumptively illegal under antitrust law. This Part also explores potential exemptions for certain types of cooperative institutions as well as the impact of antitrust concerns on the implementation of property-based fishery management regimes. Part V considers how antitrust concerns might inhibit conservation or other environmental goals in the contexts of oil production and pollution control. While the focus of this Article is fishery conservation, the analysis is potentially applicable to other contexts where antitrust law inhibits nongovernmental common pool management efforts.

While existing antitrust doctrine conflicts with fishery conservation efforts, this need not be the case. Part VI explores how conservation objectives might be reconciled with antitrust concerns. Insofar as antitrust doctrine is motivated by efficiency concerns, antitrust law need not be hostile to private efforts to conserve common pool resources. The doctrine of ancillary restraints provides a sound analytical foundation for approving at least some cooperative fishery conservation efforts under the rule of reason. Insofar as existing

29. David L. Allison, *Problems with U.S. Ocean Governance and Institutional Structures: The Impact on Waters, Fish, and Fisheries in the U.S. Exclusive Economic Zone*, *in* PEW OCEANS COMM'N, MANAGING MARINE FISHERIES IN THE UNITED STATES 25, 25 (2002), *available at* http://www.pewoceans.org/reports/pew_managing_fisheries.pdf.

antitrust precedent forecloses such a result, statutory measures may facilitate private cooperative fishery conservation efforts. In either case, antitrust law should be made more hospitable to nongovernmental conservation efforts.

II. Conservation of the Marine Commons

Garrett Hardin's influential essay *The Tragedy of the Commons*[30] described the fate of a common pasture that was owned by no one but available to all. In such a situation, each herdsman will maximize his use of the commons at the expense of the community at large. Each individual herdsman captures the complete benefit of adding one additional animal to his herd. Yet the cost to the pasture, in the form of overgrazing, is dispersed among all of the users. Insofar as adding one additional animal contributes to overgrazing, that cost is distributed equally among all pasture users, so each individual herdsman has little incentive to exercise restraint. Yet, when all the herdsmen act in this fashion, the commons becomes overgrazed and tragedy results.[31] Thus, Hardin warned, "Freedom in a commons brings ruin to all."[32] To prevent overexploitation, use of the pasture must be limited so as to constrain consumption and prevent overuse.[33]

---

30. *See generally* Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243 (1968).

31. As Hardin explained, "[E]ach man is locked into a system that compels him to increase his herd without limit—in a world that is limited." *Id.* at 1244.

32. *Id.* at 1247. It should be pointed out that the "tragedy of the commons" describes the condition of open-access commons. The mere existence of a "commons," or some form of common ownership, does not necessarily produce the tragedy Hardin describes. Historically, common pastures were rarely open-access, as use was controlled by common property rules, customary norms, or other restraints on resource exploitation. *See generally* ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (1990); THE POLITICAL ECONOMY OF CUSTOMS AND CULTURE: INFORMAL SOLUTIONS TO THE COMMONS PROBLEM (Terry L. Anderson & Randy T. Simmons eds., 1993); Susan Jane Buck Cox, *No Tragedy on the Commons*, 7 ENVTL. ETHICS 49 (1985). Such open-access commons problems only occur when there is sufficient use to threaten the sustainability of the resource. When local populations are relatively small, aggregate catch levels are simply not large enough to cause fishery depletion, irrespective of whether the fishery is an open-access resource. *See* Anthony D. Scott, *The ITQ as a Property Right: Where It Came From, How It Works, and Where It Is Going*, *in* TAKING OWNERSHIP: PROPERTY RIGHTS AND FISHERY MANAGEMENT ON THE ATLANTIC COAST 31, 31–32 (Brian L. Crowley ed., 1996) (noting that the "race to fish" only arises after there is sufficient demand for fish to become economically scarce).

33. *See* Randall Bess & Michael Harte, *The Role of Property Rights in the Development of New Zealand's Seafood Industry*, 24 MARINE POL'Y 331, 331 (2000) ("[T]he challenge for any fisheries policy and management system is to determine and enforce harvest levels that will sustain fish stocks and access rights to fisheries.").

Hardin used the metaphor of a common pasture, but he could just as well have described a fishery. Indeed, while Hardin's essay popularized the concept of the "tragedy of the commons," fishery economists first articulated the concept as applied to fisheries over a decade earlier.[34] Ocean fisheries represent the archetypal commons problem where open access leads to overconsumption and depletion of the resource.[35] In place of herdsmen grazing animals on a common pasture, fishing boats all seek to exploit a common fishery. The incentive faced by each individual fisher is quite the same as that faced by the hypothetical herdsman. Each individual fisher captures the benefits of increasing fishing effort—perhaps by adding additional labor, gear, or an extra boat. The costs to the fishery, however, are spread across all of the users. The result is overfishing and the eventual depletion of the fishery. Limiting the fish catch can sustain the resource, but no individual fisher has sufficient incentive to exercise such restraint.[36]

The initial choice of solutions to the commons problem, as described by Hardin, is between political controls and some form of private property. "The tragedy of the commons . . . is averted by private property, or something formally like it," but where private property is lacking, the commons can only be saved by "mutual coercion, mutually agreed upon."[37] As Hardin presented it, conservation of the commons requires either privatization or government regulation. In either case, the aim is the same: Control access and limit overuse of the underlying resource.

---

34. *See generally* H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. POL. ECON. 124 (1954) (applying the commons concept to fisheries); Anthony Scott, *The Fishery: The Objectives of Sole Ownership*, 63 J. POL. ECON. 116 (1955) (same). Gordon and Scott themselves were not the first to make this observation. Aristotle made the same point much earlier. *See* ARISTOTLE, POLITICS §1261b (Benjamin Joweth trans., 1943) ("[T]hat which is common to the greatest number has the least care bestowed upon it.").

35. A.W. May, *Foreword*, *in* TAKING OWNERSHIP: PROPERTY RIGHTS AND FISHERY MANAGEMENT ON THE ATLANTIC COAST, at v, v (Brian L. Crowley ed., 1996) ("[T]he single overwhelming feature which bedevils attempts to produce prosperity and stability in the fishing industry is the common-property nature of resource exploitation.").

36. As Anthony Scott observes, "No one will take the trouble to husband and maintain a resource unless he has a reasonable certainty of receiving some portion of the product of his management; that is, unless he has some property right in the yield." Scott, *supra* note 32, at 63. While it may be an overstatement to claim that "no one" will act in such a manner, this is clearly a case in which the exception proves the rule.

37. Hardin, *supra* note 30, at 1245–47; *see also* Gordon, *supra* note 34, at 135 (noting that marine resource conservation can "be accomplished only by methods which make them private property or public (government) property, in either case subject to a unified directing power.").

Private property tends to avert the commons problem because property owners have a substantial incentive to maximize the value of the resource in question.[38] This tendency necessarily requires accounting for the value that others place on the resource and the value of sustaining the resource over time.[39] The benefits of property ownership do not depend on each owner acting solely, or even primarily, with a profit motive.[40] In addition to providing incentives for greater resource stewardship, property rights also foster private ordering by reducing the transaction costs associated with negotiating over remaining externalities.[41]

Despite the potential benefits from property rights, individual ownership is rare in marine fisheries.[42] Many fish species are mobile across vast distances,

---

38. *See* Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241, 243 (2000) ("Both field investigations and social science experiments have shown that privatization, when possible, is typically a particularly effective solution to the tragedy of the commons.").

39. *See* Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 355 (1967) ("[I]f a single person owns land, he will attempt to maximize its present value by taking into account alternative future time streams of benefits and costs and selecting that one which he believes will maximize the present value of his privately-owned land rights."). Demsetz's claim is not that every single property owner will act in this fashion. Rather, it is that the incentives created by ownership are such that the *typical* property owner will act so as to maximize the present value of her own property. The behavior of specific individuals will vary, however, with some taking greater or lesser actions to maximize the present value of the property in question, but the norm will remain. Those property owners that do the best job of estimating likely future income streams are then rewarded in the marketplace with greater property values.

40. *See, e.g.*, Robert J. Smith, *Resolving the Tragedy of the Commons by Creating Private Property Rights in Wildlife*, 1 CATO J. 439, 456 (1981) ("Wherever we have exclusive private ownership, whether it is organized around a profit-seeking or nonprofit undertaking, there are incentives for the private owners to preserve the resource.").

41. *See* David Schmidtz, *The Institution of Property*, *in* THE COMMON LAW AND THE ENVIRONMENT 109, 120 (Roger E. Meiners & Andrew P. Morriss eds., 2000) (describing the advantages of privatization in dealing with externalities); *see also* Steven N.S. Cheung, *The Structure of a Contract and the Theory of a Non-Exclusive Resource*, 13 J.L. & ECON. 49, 50–54 (1970) (discussing how the presence of private property rights and the knowledge of such rights by parties leads to a reduction in the costs associated with externalities, and illustrating this idea through the example of commercial fishing). For a more complete discussion of the role property rights play in facilitating private ordering, with specific attention to fishery conservation, see Jonathan H. Adler, *Legal Obstacles to Private Ordering in Marine Fisheries*, 8 ROGER WILLIAMS U. L. REV. 9, 22–28 (2002).

42. Individuated property ownership entails a single owner or ownership entity, but it need not require a sole proprietor. Corporations, cooperatives, and other organizations can also be sole owners. Where property rights are secure, a sole owner will have an incentive to maximize the present value of the resource, whether it is a single individual or an institution of some sort. *See* Scott, *supra* note 34, at 140–41 (examining the exploitation of a fishing ground under unified control); *see also* Ralph E. Townsend & Samuel G. Pooley, *Corporate Management of the Northwestern Hawaiian Islands Lobster Fishery*, 28 OCEAN & COASTAL

and the ocean's expanse makes it difficult to monitor access to marine fisheries. These factors, among others, make it particularly costly to define and enforce property rights in the marine context.[43] Because the costs to define and defend property rights in marine fisheries are often greater than the benefits to be derived therefrom, individual property rights rarely emerge.[44] There are some exceptions, however, such as privately owned oyster beds.[45] In addition, changes in technology over time can facilitate the expansion of property rights in natural resources.[46]

If property rights in fisheries exist, they tend to be collective or "common property" rights.[47] As McKean and Ostrom explain, "Common property regimes are a way of privatizing the rights to something without dividing it into pieces."[48] Typically, such regimes "have evolved in places where the demand

---

MGMT. 63, 68 (1995) (noting that "there is no need to abandon private property approaches in order to achieve collective decision-making" because "[a] corporation is essentially a set of resource owners who must make unified decisions about jointly-owned assets").

43. *See* Ronald N. Johnson & Gary D. Libecap, *Contracting Problems and Regulation: The Case of the Fishery*, 72 AM. ECON. REV. 1005, 1019 (1982) (describing the inherent difficulty of regulating property rights related to fishing); *see also* Thompson, *supra* note 38, at 244–45 (noting the difficulty in implementing solutions to commons problems).

44. *See* Demsetz, *supra* note 39, at 350 (noting that "property rights develop to internalize externalities when the gains of internalization become larger than the cost of internalization").

45. *See generally* Richard J. Agnello & Lawrence P. Donnelley, *Prices and Property Rights in the Fisheries*, 42 S. ECON. J. 253 (1975); Richard J. Agnello & Lawrence P. Donnelley, *Property Rights and Efficiency in the Oyster Industry*, 18 J.L. & ECON. 521 (1975).

46. *See* Bruce Yandle & Andrew P. Morriss, *The Technologies of Property Rights: Choice Among Alternative Solutions to Tragedies of the Commons*, 28 ECOLOGY L.Q. 123, 139–41 (2001) (explaining how changes in technology alter the costs of defining, defending, and transferring property rights). A good example of the role of technology in the evolution of property rights is how the development of barbed wire and branding facilitated the definition of property rights on the Western Range. *See* Terry L. Anderson & Peter J. Hill, *The Evolution of Property Rights: A Study of the American West*, 8 J.L. & ECON. 163, 175 (1975) (discussing the impact of technological advances such as barbed wire on the development of property rights in the American West). It is possible that similar technological development is occurring, or could yet occur, in the context of marine resources. *See* MICHAEL DE ALESSI, FISHING FOR SOLUTIONS 48–53 (1998) (describing how the technologies of branding and fencing could be used to facilitate the development of private property rights in the fishing industry); Daniel Huppert & Gunnar Knapp, *Technology and Property Rights in Fisheries Management*, *in* THE TECHNOLOGY OF PROPERTY RIGHTS 79, 88–96 (Terry L. Anderson & Peter J. Hill eds., 2001) (discussing various technological innovations and explaining how they impact rights-based management in the fishing industry).

47. *See generally* OSTROM, *supra* note 32; Michael De Alessi, *Fishing for Solutions: The State of the World's Fisheries*, *in* EARTH REPORT 2000: REVISITING THE TRUE STATE OF THE PLANET 85 (Ronald Bailey ed., 2000); Donald R. Leal, *Community-Run Fisheries: Avoiding the "Tragedy of the Commons"*, PERC POLICY SERIES PS-7 (1996).

48. Margaret McKean & Elinor Ostrom, *Common Property Regimes in the Forest: Just a Relic From the Past?*, 46 UNASYLVA 3, 6 (1995).

on a resource is too great to tolerate open access, so property rights in resources have to be created, but some other factor makes it impossible or undesirable to parcel out the resource itself."[49] In such cases, the rules governing the use of the fishery are somewhat informal, often arising out of local custom or community practice. In other cases, there have been efforts to adopt formal collective rules to limit catches and conserve the underlying resource. In each case, the management regimes have evolved over time in an effort to increase the returns to the users of the resource.

Common property and other "collective" approaches to fishery management appear to have been quite successful.[50] Such arrangements often evolve over time to facilitate "orderly exploitation and conservation of the resource."[51] Today, some fishing communities have turned to various cooperative approaches to help rationalize fishery management.[52] Collective associations may also have a comparative advantage against government agencies in regulating fishing activity, particularly in the development, acquisition, and distribution of relevant information about fish stocks, fishing activity, and the like.[53] In New Zealand, holders of individual fishing quotas (IFQ) have begun to collaborate to conserve fish stocks by, among other things, monitoring catch levels and supporting fishery research.[54]

---

49. *Id.* at 6.

50. *See* Leal, *supra* note 47, at 2 (stating that community-based local management of fisheries has been used to prevent the tragedy of the commons).

51. Gordon, *supra* note 34, at 134.

52. *See infra* Part IV.E and accompanying text (describing results of cooperative approaches to fishery management).

53. *See* Anthony Scott, *Obstacles to Fishery Self-Government*, 8 MARINE RES. ECON. 187, 193 (1993) (noting "that a self-governing fisher group may be able to get its information at lower real costs than under regulation"); Scott, *supra* note 32, at 82 ("[F]ishers on the water can seek and provide more kinds of data, of better quality, than have simply emerged as byproducts of fishing."); *see also* C.J. Batstone & B.M.H. Sharp, *Minimum Information Management Systems and ITQ Fisheries Management*, 45 J. ENV. ECON. & MGMT. 492, 493 (2003) (noting that "rights-based management systems provide a basis for an information generating mechanism that could prove useful in fisheries management"), *at* http://www.sciencedirect.com (on file with the Washington and Lee Law Review); Peter S. Burton, *Community Enforcement of Fisheries Effort Restrictions*, 45 J. ENV. ECON. & MGMT. 474, 475 (2003) (noting "concern that central authorities do not have the intimate knowledge of the resource that may be held by local residents, particularly those active in the fishery"), *available at* http://www.sciencedirect.com; Ralph E. Townsend, *Fisheries Self-governance: Corporate or Cooperative Structures?*, 19 MARINE POL'Y 39, 39 (1995) ("Local communities have extensive information about the resource and about the industry and its technology that is very useful in designing effective rules.").

54. *See* Alison Rieser, *Property Rights and Ecosystem Management in U.S. Fisheries: Contracting for the Commons?*, 24 ECOLOGY. L.Q. 813, 823–24 (1997) (describing New Zealand's IFQ system).

Cooperative self-governing institutions in fisheries have, by and large, focused on controlling many aspects of the fishery. To date, however, few have focused explicitly on protecting the fish stock by directly controlling catch levels.[55] Distributional conflicts and heterogeneity among fishers may well account for some of this.[56] It may also be the case that in many fisheries, the gains from explicit catch controls do not outweigh the information and contracting costs required to create and enforce such limits.[57] Government involvement has not been neutral in this regard. Collective arrangements among private firms to reduce output or allocate market shares are inherently suspect under conventional antitrust jurisprudence, even if the intent or effect is to conserve an otherwise threatened ecological resource.[58] In simple terms, some ecologically beneficial arrangements are against U.S. law. By limiting the sorts of cooperative arrangements that fishers or other common pool resource users may adopt to limit access or utilization of the underlying resource, government policy may inhibit the development of more effective self-governing conservation measures.

While there are many examples of common property and other property-based approaches to marine conservation,[59] the dominant management approach of the past several decades has been the use of government regulation.[60] In practice, such regulations turn the fishery from an open-access

---

55. *See* Scott, *supra* note 53, at 189–90 (discussing attempts at fishery self-governance and the outcome of such efforts).

56. *See* LIBECAP, *supra* note 7, at 86 (explaining the problems that lead fishermen, politicians, and bureaucrats to favor catch-enhancing policies rather than policies that restrict individual fishing).

57. As Harold Demsetz notes, property rights in resources may emerge when the benefits from the creation of the property rights exceed the costs of defining and defending such rights. Demsetz, *supra* note 39, at 351.

58. *See infra* Part IV (discussing the conflict between conservation and antitrust in fisheries).

59. *See generally* DE ALESSI, *supra* note 46; De Alessi, *supra* note 47; Steven F. Edwards, *Ownership of Renewable Ocean Resources*, 9 MARINE RES. ECON. 253 (1994); Kent Jeffreys, *Rescuing the Oceans*, *in* THE TRUE STATE OF THE PLANET 295, 307–27 (Ronald Bailey ed., 1995) (discussing approaches taken towards conserving commercial fisheries through property rights including those of the United States, Japan, and New Zealand); Donald R. Leal, *Cooperating on the Commons: Case Studies in Community Fisheries*, *in* WHO OWNS THE ENVIRONMENT? 283 (Peter J. Hill & Roger E. Meiners eds., 1998); Donald R. Leal, *Homesteading the Oceans: The Case for Property Rights in U.S. Fisheries*, PERC POLICY SERIES PS-19 (2000).

60. The primary federal statute governing fishery management is the Magnuson Fishery Conservation and Management Act, 16 U.S.C. §§ 1801–82, enacted in 1976. Under the Act, eight regional fishery management councils are responsible for developing management plans for regional fisheries in federal waters that are consistent with national standards. The regional councils are overseen by the National Marine Fisheries Service, a division of the National Oceanic and Atmospheric Administration within the Department of Commerce. Fisheries in

resource into a "regulated open access" resource,[61] and the results—"tragic"[62] and "spectacular failure"[63]—have been little better.[64] As in the open-access commons, fishers operating under "regulated open access" have little incentive to steward the underlying resource or support sustainable regulatory measures.[65] Even where fishery management decisions are made by "expert" administrators, resource users typically view long-run decisions as "substantially unpredictable and unresponsive."[66] The lack of a concrete property interest in the fishery means that individual fishers have no expectation that sustainable management will inure to their benefit.[67] Thus, they push regulatory entities to allow higher harvest rates.[68] This problem is compounded by the scientific uncertainty inherent in fishery assessments, which provides fishers with an excuse to push for less conservative catch limits.[69] "The result is a continuous, unidirectional increase in fishing effort, and in some cases fishery collapse," the existence of regulatory structures notwithstanding.[70]

---

state waters are governed by state law.

61. *See* Frances R. Homans & James E. Wilen, *A Model of Regulated Open Access Resource Use*, 32 J. ENVTL. ECON. & MGMT. 1, 1 (1997) ("[M]ost of the world's most important fisheries operate under what might best be termed *regulated open access.*"), *available at* http://www.sciencedirect.com.

62. Harry N. Scheiber & Christopher J. Carr, *From Extended Jurisdiction to Privatization: International Law, Biology, and Economics in the Marine Fisheries Debates, 1937–1976*, 16 BERKELEY J. INT'L L. 10, 53 (1998) (describing the "tragic failure" of fishery management under the Magnuson Act).

63. Rieser, *supra* note 54, at 813; *see generally* Shi-Ling Hsu & James E. Wilen, *Ecosystem Management and the 1996 Sustainable Fisheries Act*, 24 ECOLOGY L.Q. 799 (1997).

64. Indeed, even the most heavily regulated fisheries are subject to substantial overfishing. Eagle & Thomson, *supra* note 28, at 650.

65. *See* Scott, *supra* note 32, at 44–45 (discussing incentives for fishermen under regulation).

66. Townsend & Pooley, *supra* note 42, at 70.

67. *See* Scott, *supra* note 32, at 45 ("[I]f there is anything that damns a governmental regulation regime more than its direct and indirect effects in raising costs above their level in an unregulated fishery, it is the unconstructive, even nihilistic, attitudes to long-run stock and ecosystem dynamics that it engenders in fishers.").

68. *See* Townsend & Pooley, *supra* note 42, at 70 (noting that for fishers under regulation "the best strategy is to get as many concessions as possible from the current administration").

69. *See* A.A. Rosenberg et al., *Achieving Sustainable Use of Renewable Resources*, 262 SCI. 828, 829 (1993) (citing the problems of measuring marine fish stocks as a reason why fishery managers have maintained harvesting levels rather than reducing such levels); *see also* Thompson, *supra* note 38, at 258–59 (noting that scientific uncertainty leads fisherman and others to overestimate the size of fish stocks).

70. Louis W. Botsford et al., *The Management of Fisheries and Marine Ecosystems*, 277 SCI. 509, 512 (1997).

Fishery regulations have typically taken the form of limits on season length, boat size, equipment, and even total seasonal catch. None has worked particularly well, largely because they fail to alter the open-access nature of the resource.[71] Season limitations produce a "race to fish" as fishers seek to catch as much as possible before the fishery is closed.[72] The results are rampant overcapitalization[73] and a destructive "derby" system in which each fisher races to catch as much as he or she can before the season closes.[74] Where such restrictions are combined with seasonal catch limits, the result is a fast and furious fishing season, sometimes lasting little more than several days.[75] Efforts to control total catch by mandating that fishers use less efficient means of catching fish encourage fishers to increase their investment in additional vessels or gear to compensate for the efficiency losses. If regulations require the use of less effective nets, fishers will simply purchase additional nets to make up for the lost catch. Such restrictions "are to a large extent futile, since the ingenuity and inventiveness of the fishers means that regulatory restrictions frequently lag behind the latest techniques for circumventing the rules."[76]

---

71. *See* Terry L. Anderson & Donald R. Leal, *Fishing for Property Rights to Fish*, *in* TAKING THE ENVIRONMENT SERIOUSLY 161, 162 (Roger E. Meiners & Bruce Yandle eds., 1993) (describing attempts to solve the fishery commons problem through various regulations and the failure of such attempts due to the absence of property rights); *see also* DE ALESSI, *supra* note 46, at 31–35 (summarizing the impact of fishery regulation); R. Quentin Grafton, *Performance of and Prospects for Rights-based Fisheries Management in Atlantic Canada*, *in* TAKING OWNERSHIP: PROPERTY RIGHTS AND FISHERY MANAGEMENT ON THE ATLANTIC COAST 145, 147–48 (Brian Crowley ed., 1996) ("[A]ttempts to regulate fishing effort by controlling certain inputs does not change the incentive of fishers to compete among themselves for the limited harvest."). The failure of fishery regulation is economic as well as ecological. *See generally* Scott, *supra* note 32.

72. Season limitations or catch limits that result in a shortened fishing season also produce a "race to process" and overcapitalization in the processing sector. Scott C. Matulich et al., *Toward a More Complete Model of Individual Transferable Fishing Quotas: Implications of Incorporating the Processing Sector*, 31 J. ENVTL. ECON. & MGMT. 112, 120 (1996), *available at* http://www.sciencedirect.com.

73. *See* Homans & Wilen, *supra* note 61, at 17 ("[R]egulated fisheries are likely to attract even more redundant capital than was predicted by Gordon's unregulated open access model.").

74. *See* Donald R. Leal, *Fueling the Race to the Fish*, *in* GOVERNMENT VERSUS ENVIRONMENT 38, 48 (Donald R. Leal & Roger E. Meiners eds., 2002) (describing how fishery regulations resulted in the shortening of the season for the Alaska halibut fishery to only *a few days*). The race to fish is bad not only for the fishery, but for the fishers as well, as the scramble to maximize the catch in a short period of time increases the occupational hazards of commercial fishing. *Id.*; *see also* Bonnie J. McCay, *Social and Ecological Implications of ITQs: An Overview*, 28 OCEAN & COASTAL MGMT. 3, 4 (1995) (noting that traditional regulation has "led to overcapitalization, drastically shortened seasons and losses of life and property").

75. *Id.*

76. Brian L. Crowley, *Introduction*, *in* TAKING OWNERSHIP: PROPERTY RIGHTS AND

Efforts to protect fisheries by directly controlling entry have not fared much better.[77] License systems may limit the number of boats or firms in the fishery, but they do not control the amount of effort. As with season limitations, or gear restrictions, license limits also tend to encourage overcapitalization and the "race to fish."[78]

Regulatory failures have been compounded by government subsidies to fishers that further increase unsustainable exploitation of marine fisheries.[79] These subsidies range from income supports to direct and indirect subsidies of capital and operating costs.[80] Such subsidies compound the overcapitalization already brought about by the "race to fish," and further undermine the effort to ensure fishery sustainability.

In recent years, there have been efforts to move away from command-and-control regulation toward property-based management regimes.[81] The most notable of such systems involve the allocation of individual transferable quotas (ITQs), also known as individual fishing quotas (IFQs). Under an ITQ regime, a management entity, typically a government agency, sets the total allowable catch for the fishery. Individual fishers are then allotted shares of the annual catch in the form of a transferable right, or "quota." Fishers may catch up to

---

FISHERY MANAGEMENT ON THE ATLANTIC COAST 4 (Brian L. Crowley ed., 1996); *see also* Hsu & Wilen, *supra* note 63, at 806–07 ("The technological resourcefulness of fishermen has historically made a mockery of the most stringent and carefully crafted command and control regulations aimed at reducing fishing effort.").

77. *See* E.A. Keen, *Common Property in Fisheries: Is Sole Ownership an Option?*, MARINE POL'Y, July 1983, at 197, 200 (noting the overall conclusion that limited entry has not worked very well). Limited entry systems may restrict the total number of fishers or boats, but such restrictions "fail to correct problems associated with the commons and create serious impediments to efforts made to restore and enhance productivity of fishery resources." *Id.* at 211; *see also* Grafton, *supra* note 71, at 147 (noting that limited entry in Canada's Atlantic fisheries failed to reduce fishing effort).

78. *See* Crowley, *supra* note 76, at 4. Crowley states:

> Fishers' licenses give them no right to a share of the catch, but only a right to put their lines or nets or traps in the water, so each fisher invests disproportionate capital in his catching and storage capacity, to increase his chances of getting an adequate share of an uncertain harvest.

Id.

79. *See* Leal, *supra* note 74, at 49–59 (discussing how subsidies to fishers contribute to overfishing)

80. The various types of subsidies include income supports, capital and operating cost subsidies, foreign access subsidies, resource management subsidies, and cross-sectoral subsidies. *See id.* at 49.

81. May, *supra* note 35, at v (noting that "a body of new experience, founded on private rather than communal rights in the fisheries is emerging"). For further description of this movement, see Adler, *supra* note 41, at 18–22.

their quota in a given season or transfer some portion to others. Although not a pure property right, ITQs reduce the "race to fish" and create greater incentives for fishery conservation. Because shares of the total catch are allocated, one fisher's gain is no longer another's potential loss.[82] Each fisher now has an incentive to increase her profit by reducing fishing costs and increasing the volume of recoverable product from the fish caught. Given that ITQs are transferable, over time more efficient fishers tend to purchase quota from those who are less efficient, increasing the overall efficiency of the fishery.[83]

New Zealand adopted the first ITQ regimes in the mid-1980s.[84] Since then, they also have been adopted in several other countries, including Iceland,[85] as well as parts of Canada[86] and the United States.[87] In practice, ITQ systems have increased fishing efficiency, reduced overcapitalization, and lessened the ecological impact of fishing operations.[88] At the same time, ITQ

---

82. *See* Scott, *supra* note 32, at 46–47 (noting the benefits of the ITQ system).

83. *See* Sanchirico & Newell, *supra* note 22, at 10 (explaining the practices of fishery).

84. DE ALESSI, *supra* note 46, at 41. In New Zealand, ITQs are used to manage over 180 fish stocks, covering 100 species of fish. Bess & Harte, *supra* note 33.

85. *See* HANNES H. GISSURARSON, OVERFISHING: THE ICELANDIC SOLUTION 16–21 (2000) (noting that although Iceland arguably created the first ITQ system in 1979, it did not utilize a comprehensive ITQ system until 1991 when the Fisheries Management Act came into effect).

86. *See* ROBERT REPETTO, THE ATLANTIC SEA SCALLOP FISHERY IN THE U.S. AND CANADA: A NATURAL EXPERIMENT IN FISHERIES MANAGEMENT REGIMES 6–7 (2001) (noting that Canada's sea scallop industry began moving towards a right-based system—which includes ITQs—in the mid-1980s); R. Quentin Grafton et al., *Private Property and Economic Efficiency: A Study of a Common-Pool Resource*, 43 J.L. & ECON. 679, 682 (2000) (noting ITQs have been introduced in Canada); Bonnie J. McCay et al., *Individual Transferable Quotas in Canadian and U.S. Fisheries*, 28 OCEAN & COASTAL MGMT 85, 87 (1995) (recognizing that Canada had a form of individualized quotas from the late 1970s until 1990, when the first true 'ITQ' fishery for groundfish was established on the east coast of Canada by an order of the Minister of Fisheries).

87. In the United States, ITQ programs were implemented in the Mid-Atlantic Surf Clam-Ocean Quahog, South Atlantic Wreckfish, and North Pacific Halibut-Sablefish. *See* Keith R. Criddle & Seth Macinko, *A Requiem for the IFQ in US Fisheries*, 24 MARINE POL'Y 461, 462 (2000) (noting these individual fishing quota programs were implemented during the 1980s and 1990s). ITQ programs have also been implemented in Australia and the Netherlands. *See* James E. Wilen, *Renewable Resource Economists and Policy: What Differences Have We Made?*, 39 J. ENVTL. ECON. & MGMT. 306, 317 (2000) (noting that ITQ programs were introduced in Australia and Netherlands after such programs appeared as "demonstration programs" in New Zealand and Iceland); *see also* RICHARD G. NEWELL ET AL., FISHING QUOTA MARKETS 2 (Resources for the Future Discussion Paper 02-20, August 2002) (noting that sixteen countries have adopted some form of ITQ system).

88. *See* GISSURARSON, *supra* note 85, at 29 (recognizing that an ITQ system counteracts the tragedy of the commons and reduces overcapitalization and inefficiency); REPETTO, *supra* note 86, at 2 (observing that several commentators recognize ITQ systems help reduce excessive effort, increase efficiency, and are consistent with models of market-friendly environmentalism); J. Annala, *New Zealand's ITQ System: Have the First Eight Years Been a Success or Failure?*, 6 REVIEWS IN FISH BIOLOGY AND FISHERIES 42, 46 (1996) (noting that several commentators

systems have created incentives for stewardship of fishery resources among fishers.[89] Each fisher has "an interest in cooperating to build the stocks, because each will benefit from increased catches in the future."[90]

Despite their success, ITQs are not without their flaws.[91] Although ITQs can generate substantial efficiency gains, they can produce unwelcome socio-economic effects. In the United States, concerns about both the initial allocation of quota shares and the impact of ITQ transfer on smaller fishing communities has limited the adoption of ITQ systems.[92] These concerns led to the adoption of a temporary moratorium on the adoption of ITQ systems in U.S. waters[93] and limitations on ITQ systems elsewhere.[94]

---

concluded that New Zealand's Quota Management System reduced overfishing while improving the economic returns to the fishing industry); Grafton et al., *supra* note 86, at 683 (arguing that ITQ can lead to improvements in "allocative efficiency" and "technical efficiency"). Indeed, the experience with ITQs has been that "the gains in efficiency are almost always greater than expected, even by the most ardent supporters." Wilen, *supra* note 87, at 317; *see also* NEWELL ET AL., *supra* note 87, at 2 (noting the generally positive assessment of ITQ systems).

89. Scott, *supra* note 32, at 47–48 (arguing that exclusivity gets a rights holder more involved in improving the health, growth, or value of his stock, and will discourage poachers).

90. Crowley, *supra* note 76, at 4. This observation is not merely theoretical. In New Zealand, for example, ITQs have given fishers an incentive to monitor fish catch and population levels, and to ensure that government set catch limits are sufficiently stringent. "It's the first group of fishers I've ever encountered who turned down the chance to take more fish," observed New Zealand's Agriculture Minister of the effect of ITQs on fisher behavior. DE ALESSI, *supra* note 46, at 99.

91. *See* DE ALESSI, *supra* note 46, at 43–45 (discussing problems with ITQs and concluding that the main problem with ITQs is that they are not real private property rights and therefore might stifle, inter alia, innovations and resource enhancement); U.S. GENERAL ACCOUNTING OFFICE, INDIVIDUAL FISHING QUOTAS: BETTER INFORMATION COULD IMPROVE PROGRAM MANAGEMENT, GAO-03-159, Dec. 2002, at 2 (noting that while ITQ programs "have achieved many of the desired conservation and management benefits, such as helping to stabilize fisheries, reducing excessive investment in fishing capacity, and improving safety," there are also concerns about "the fairness of quota allocations," potential consolidation, and the impacts of ITQ systems on local fishing communities). *See generally* McCay, *supra* note 74.

92. Many of these concerns are summarized in McCay, *supra* note 74, at 7–10, and DE ALESSI, *supra* note 46, at 45–47 (highlighting the different arguments posed against the implementation of ITQs, and concluding many such arguments are unfounded); *see also* Scott C. Matulich et al., *Fishery Cooperatives as an Alternative to ITQs: Implications of the American Fisheries Act*, 16 MAR. RES. ECON. 1, 1 (2001) (noting the political resistance to the adoption of ITQs).

93. *See* Sustainable Fisheries Act of 1996, Pub.L. 104-297, 110 Stat. 3576. The approval of the moratorium stopped the implementation of ITQ programs covering Gulf of Mexico Red Snapper and Pacific Sablefish, each of which had been approved by their respective regional fishery management councils. *See* Criddle & Macinko, *supra* note 87, at 462 (discussing the effects of the approval of the moratorium).

94. *See* DE ALESSI, *supra* note 46, at 46 (noting that the New Zealand quota system has been criticized for excluding small-scale and independent fishers from fisheries). At the time of this writing, Congress is expected to revisit the ITQ moratorium.

While adoption of ITQ systems in the United States has been slow, there have been private initiatives to allocate annual harvests among firms in catch-limited fisheries so as to create quasi-property rights and capture the economic and ecological benefits that result.[95] In effect, individual fishers and firms have joined together in an effort to create common property or de facto ITQ regimes where governmental agencies have failed to act. Yet, as discussed below, antitrust law can operate as a formidable obstacle to the implementation and enforcement of such systems.[96] Indeed, antitrust labels some conservation arrangements as illegal collusion.

III. Antitrust: The Concern with Collusion

The aim of antitrust law is to protect consumers from anticompetitive conduct that increases consumer prices. Archetypal anticompetitive conduct is the imposition of market restraints that prevent price competition. Consider the basic cartel of competitors who collectively agree to fix prices at levels above those that would prevail in a competitive market. This sort of agreement harms consumers by transferring wealth to producers (through the higher prices), reducing output (because consumers will consume less at a higher price), and reducing competitive pressures for efficiency and innovation (because the cartel reduces competition among firms). The primary focus of antitrust enforcement is on those activities and arrangements, such as price-fixing cartels, that harm consumer welfare in this fashion. By preventing such arrangements, antitrust law aims to benefit consumers by ensuring that competitive market pressures restrain retail prices and foster innovation.

The principle federal antitrust law, the Sherman Anti-Trust Act,[97] was enacted in 1890 to break up "trusts."[98] The Sherman Act prohibits contracts, combinations, and conspiracies "in restraint of trade," as well as the monopolization or attempted monopolization of any given market.[99] These provisions are primarily enforced by the U.S. Department of Justice. Under the Clayton Act, however, any person who is injured by actions that are illegal

---

95. *See infra* Part IV.E (discussing harvesting cooperatives).

96. *See infra* Part IV (discussing the effects of antitrust law on such efforts).

97. 15 U.S.C. §§ 1–7 (2000).

98. *See* 1 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 101, at 8–9 (2d ed. 2002) (suggesting that the framers of the Sherman Anti-Trust Act intended in part to "federalize" state common law directed at trusts, but also intended to be much broader in scope).

99. 15 U.S.C. § 12.

under federal antitrust law may file suit in federal district court and seek recovery of "threefold the damages by him sustained, and the cost of the suit, including a reasonable attorney's fee."[100] This provision creates a powerful incentive for those who may have been harmed by alleged anticompetitive conduct to seek private enforcement of antitrust laws in the courts.[101]

One source of difficulty for antitrust law is that all economic agreements have the potential to restrain trade to some degree.[102] Yet, some such agreements may benefit consumers by increasing the efficiency of producing firms, thereby reducing prices.[103] Antitrust law attempts to weigh the potential pro-competitive effects of a given arrangement against its potential anticompetitive effects. When it is unclear whether a given arrangement is inherently pro- or anticompetitive, judges apply a standard called the "rule of reason" which requires them to balance the probable off-setting impacts of the arrangement. As described by Justice Brandeis, under the rule of reason courts consider "whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition."[104]

To understand how anticompetitive behavior can have pro-competitive effects, consider the simple example of a merger between two large firms in a relatively concentrated industry. On the one hand, the combination of the two firms may create a single large firm that has substantial market power within the industry. If there are few competitors, the new, larger firm might be able to raise prices above the competitive level, thereby harming consumers. On the other hand, a single large firm may be more efficient than two smaller firms due to economies of scale. The ability to spread fixed costs throughout a larger firm may reduce the average cost of producing and supplying consumer goods and

---

100. *Id.* § 15.

101. *See* II AREEDA & HOVENKAMP, *supra* note 98, ¶ 312d, at 39 (noting that Section 4 of the Clayton Act provides a powerful financial incentive for private persons to enforce antitrust laws).

102. *See* Northwest Wholesale Stationers, Inc. v. Pac. Stationary & Printing Co., 472 U.S. 284, 289 (1985) (stating that "every commercial agreement restrains trade" (citing *Chicago Bd. of Trade*, 246 U.S. at 238)); Chicago Bd. of Trade v. United States, 246 U.S. 231, 238 (1918) ("Every agreement concerning trade, every regulation of trade, restrains. To bind, to restrain, is of their very essence."); *see also* ROBERT H. BORK, THE ANTITRUST PARADOX 28 (1978) ("The integration of economic activities, which is indispensable to productive efficiency, always involves the implicit elimination of actual or potential competition.").

103. *See* RICHARD A. POSNER, ANTITRUST LAW 9–32 (2nd ed. 2001) (discussing the costs and benefits of monopoly).

104. *Chicago Bd. of Trade*, 246 U.S. at 238.

services. In some cases, such efficiency gains may offset the consumer losses resulting from the reduction of competition within the industry.[105]

Due to information problems, it is not always possible for judges or government regulators to determine which actions, combinations, or arrangements are anticompetitive. For this reason, courts apply decision rules that define certain actions or types of agreements to be anticompetitive per se. As the Supreme Court explained in *Northern Pacific Railway v. United States*:[106]

> [T]here are certain agreements or practices which because of their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use.[107]

Adoption of a per se rule permits the court to make a categorical judgment as to the permissibility of a given business practice without engaging in a long, drawn-out, potentially expensive and somewhat uncertain analysis of the specific practice and its context.[108] As traditionally applied by the courts, the decision to apply a per se rule reflects a conclusion that the conduct in question does little or nothing to increase social welfare.[109] Such a judgment is typically applied to agreements between competitors—so-called "horizontal" arrangements—which explicitly limit production or control prices. These are presumptively unlawful because courts assume that the primary effect of such arrangements is to reduce competition.[110]

---

105. *See* POSNER, *supra* note 103, at 28 (suggesting that a single firm operates more efficiently in a market considerably smaller in relation to the efficient scale of production than if there existed competing firms).

106. N. Pac. Ry. v. United States, 356 U.S. 1 (1958).

107. *Id.* at 5.

108. *See* Northwest Wholesale Stationers, Inc. v. Pac. Stationary & Printing Co., 472 U.S. 284, 289 (1985) (noting that the per se approach makes "categorical judgments with respect to certain business practices that have proved to be predominantly anticompetitive" and "thereby avoid[s] the significant costs in business certainty and litigation efficiency" of a more in-depth analysis (internal quotations omitted)).

109. *See* Peter M. Gerhart, *The Supreme Court and Antitrust Analysis: The (Near) Triumph of the Chicago School*, 10 SUP. CT. REV. 319, 330 (1982) (noting that before *Arizona v. Maricopa County Medical Society*, 457 U.S. 332 (1982), a court's decision to apply the per se rule meant the conduct had no redeeming virtues).

110. "Horizontal" arrangements are distinguished from "vertical" arrangements—such as those between producers and suppliers in a given market. *See* United States v. Topco Assoc., 405 U.S. 596, 609 (1972) (holding that an agreement among retailers placing territorial restrictions on the sealing of certain products was a horizontal restraint and therefore was a per se violation of Section 1 of the Sherman Anti-Trust Act).

Perhaps the most obvious per se violation of antitrust laws is the creation or maintenance of a price-fixing cartel. As the Supreme Court explained in *United States v. Socony-Vacuum Oil Co.*,[111]

> [T]his Court has consistently and without deviation adhered to the principle that price-fixing agreements are unlawful *per se* under the Sherman Act and that no showing of so-called competitive abuses or evils which those agreements were designed to eliminate or alleviate may be interposed as a defense . . . .[112] Under the Sherman Act a combination formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price of a commodity in interstate or foreign commerce is illegal *per se*.[113]

It is important to note that the agreement in question need not explicitly concern price. Agreements that restrain output are presumed to have this effect and are treated similarly.[114]

Agreements among competitors to set prices are not the only per se antitrust violations.[115] Historically, agreements among competitors to allocate set territories and engage in group boycotts,[116] and concerted refusals to deal,[117] have also been afforded per se treatment. When such "horizontal" restraints are involved, there is no need to show that the agreement or action actually had an anticompetitive effect or otherwise harmed consumer welfare. The negative impact is presumed due to the nature of the restraint.

The application of per se rules in the context of resource conservation is a potential problem because what antitrust enforcers fear—agreements which

---

111. United States v. Socony-Vacuum Oil Co., 310 U.S. 150 (1940).

112. *Id.* at 218.

113. *Id.* at 223.

114. *See* XI AREEDA & HOVENKAMP, *supra* note 98, ¶ 1805, at 111 (noting agreements among rivals to use output contracts are illegal per se unless limited to inputs supplying a production joint venture).

115. It should be noted that the precise contours of the line dividing the per se rule from the rule of reason is the subject of academic debate. *See infra* notes 339–41 and accompanying text (discussing the trend of courts towards a less bright line approach to antitrust analysis).

116. *See* United States v. Topco Assoc., 405 U.S. 596, 601 (1972) (describing the boycott practices at issue). *But see* Rothery Storage & Van Co. v. Atlas Van Lines, 792 F.2d 210, 226 (D.C. Cir. 1986) (noting that the rule against all horizontal restraints has been "effectively overruled" by subsequent cases).

117. *See* Klor's Inc. v. Broadway-Hale Stores, Inc., 359 U.S., 207, 212–13 (1959) (finding that group boycotts, or concerted refusals by traders to deal with other traders, are forbidden because such boycotts destroy the freedom of traders and have a monopolistic tendency). *But see* Northwest Wholesale Stationers, Inc. v. Pac. Stationary & Printing Co., 472 U.S. 284, 295 (1985) (noting that although group boycotts are usually forbidden, the per se rule will not always operate against every cooperative activity involving a restraint or exclusion).

restrain output—is precisely what conservation demands. When a monopolist or cartel restricts output, it is harmful to consumers because it tends to increase prices and reduce consumer welfare. When a conservationist reduces output, however, it can be beneficial to consumers because it sustains a valuable resource. Conservation of a depletable resource requires limiting consumption. Such limits will tend to increase prices by lowering the market supply of the resource, while at the same time preventing future price increases by ensuring a long-term supply of the resource in question. By reducing consumption in the short run, conservation can actually increase consumption in the long run—and therefore enhance consumer welfare. Agreements among resource users may also help to overcome free rider problems or otherwise facilitate beneficial cooperation.[118] In this sense, such agreements are efficient, even if they increase price or reduce output, as they address some of the inefficiencies resulting from the existence of a common pool resource.[119] Nonetheless, conservation agreements can run afoul of antitrust law's per se prohibitions.

Even the rule of reason could penalize valuable conservation measures. Courts applying the rule of reason consider offsetting efficiencies from otherwise anticompetitive arrangements, such as the creation of economies of scale or the elimination of free rider problems.[120] Yet, courts have not considered the ancillary conservation benefits of otherwise anticompetitive conduct, such as the creation of a horizontal arrangement to limit consumption of a common pool resource. As a result, antitrust law may be inhibiting the evolution and development of voluntary associations and community-based conservation measures that conserve marine resources.

IV. Collusion and Cooperation in the Marine Commons

What conservation demands, antitrust condemns. Resource conservation requires limiting consumption to sustainable levels. The number of fish caught

---

118. Antitrust cases such as *United States v. Sealy*, 388 U.S. 350 (1967) are illustrative of beneficial horizontal arrangements that served to facilitate coordination and reduce free-riding within an industry but nonetheless have been struck down under the per se rule. *See* BORK, *supra* note 102, at 270 (stating that *Sealy* "illustrates both the law's uneasiness and the needless destruction of an efficiency-creating system of ancillary restraints").

119. As Areeda notes, some restraints may "actually move[] market performance close to the competitive result. Rather than suppressing competition, offsetting a 'market failure' promotes competitive results." PHILLIP E. AREEDA, ANTITRUST LAW § 1504, at 383 (1978).

120. *See* Gerhart, *supra* note 109, at 334–40 (analyzing cases that utilize the rule of reason instead of the per se rule in instances where anticompetitive agreements promoted an integration to efficiency or involved externalities and free rider problems).

in a given season cannot be greater than the regenerative capacity of the fishery or fish populations will decline. Fishery output must be restricted. Yet, antitrust law is inherently suspect of private arrangements that restrict output. When harvests are restricted, prices will increase above competitive levels. In economic terms, conservation may yield monopoly rents for producers. Private actors who seek to protect environmental resources by agreeing to limit their exploitation of the resource are doing precisely what antitrust law forbids. From the perspective of resource conservation, we recognize the value of conserving a natural resource by restraining consumption to sustainable levels. From the antitrust perspective, any agreement or association that seeks to restrict output or otherwise raise prices above their competitive levels is a pernicious influence on otherwise competitive markets. Professor Yandle observes, "Successful cooperative efforts to conserve a common-access resource yield an increase in wealth and social well-being whereas it is widely argued that collusive efforts to monopolize markets yield a net reduction in social well-being while redistributing wealth from consumers to producers."[121] While conservation and antitrust enforcement both purport to improve human welfare, in the commons they conflict.

Where formal private property institutions are absent, users of marine commons may nonetheless seek to organize themselves into communities or associations, what could be called "conservation cartels," to manage and maintain the marine commons. In the commercial context, these associations often organize so as to limit the catch. The limits are often indirect, achieved through the setting of minimum prices or the exclusion of outsiders, as the impetus for such measures is higher profit for the fishery, rather than its sustainable utilization over time, and enforcement costs preclude more direct measures. Despite the motivation that drives the formation of such associations, the impact on the fishery is the same.[122] Private associations that limit the catch can help ensure the fishing practices remain sustainable over time. Nonetheless, such environmentally beneficial arrangements are subject to antitrust prosecution.

---

121. Bruce Yandle, *Antitrust and the Commons: Cooperation or Collusion?*, 3 THE INDEPENDENT REV. 37, 38 (1998).

122. The environmental benefits of a given conservation cartel will be a function of the extent to which the arrangement is successful at reducing the total catch to a sustainable level, not the intention of those who organize or maintain the cartel. *See* ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 26–27 (R.H. Campbell et al. eds., 1976) ("It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest.").

Beginning in the late 1930s, there were several private and public prosecutions of fishermen's unions and other cooperative efforts to limit fishery exploitation. While in many, if not all, of these cases the motivation for adopting measures to limit catches was pecuniary—the fishers sought higher prices for their goods—the conservation potential of such arrangements was evident. At a time when fishery conservation had yet to become a matter of great public concern, fishers adopted means to limit the fish catch to sustainable levels.[123] Despite these potential conservation benefits, the conservation cartels were uniformly held per se illegal arrangements under the Sherman Anti-Trust Act. Today, antitrust law continues to limit collaboration among fishers in regulated fisheries, although some fishing cooperatives have escaped antitrust condemnation.

A. Gulf Coast Shrimpers

In the 1930s, shrimpers and oystermen operating along the Mississippi coast sought to increase their revenues by controlling prices and limiting entry. For this purpose, they created the Gulf Coast Shrimpers' and Oystermen's Association (GCSOA).[124] Headquartered in Biloxi, the GCSOA was made up of fishing boat captains and crews operating out of Mississippi ports. The GCSOA entered into contracts with local shrimp and oyster packers and canners whereby all association members would sell their shrimp and oyster catch to contracting packers and canners. In return, the packers and canners agreed to purchase all of the catch offered by association members, and to provide other services.[125] Some of the packers owned boats of their own that also abided by the association's rules.

The federal government brought suit against the GCSOA for Sherman Act violations. Specifically, the government adduced evidence that the association barred its members from selling shrimp and oysters below set prices, and barred participating packers and canners from purchasing catches below the set price, as well as from purchasing the catch of nonmember fishers.[126] Violators were subject to fines, suspension of membership, and forfeiture of proceeds from the

123. Indeed, at the time these arrangements were adopted, the modern environmental movement had yet to emerge and environmental problems, generally, were not matters of great public concern.

124. *See* Gulf Coast Shrimpers & Oystermans Ass'n v. United States, 236 F.2d 658, 660–61 (5th Cir. 1956) (detailing briefly the formation of GCSOA, how it operated, and its purpose).

125. *Id.*

126. *Id.* at 661.

offending catch. The GCSOA encouraged picketing and boycotting of nonparticipating packers and canners. On this evidence, the GCSOA and several of its officers were found guilty of antitrust violations.[127]

Although the GCSOA engaged in proscribed conduct, it is not at all clear that the union's activities were anticompetitive or otherwise harmed consumer welfare. Professors Johnson and Libecap found that the union explicitly sought to alter the harvesting practices of its members.[128] The union set a floor on shrimp prices based upon shrimp size, specifically the number of tails per pound. This price was generally greater than prevailing market prices for small shrimp. In this fashion, the union was able to discourage the harvesting of smaller shrimp. As a result, shrimpers shifted their harvests to later in the season when shrimp are larger and worth more.[129] This shift also served to lessen the overall shrimp catch, as shrimpers were not driven to catch more, lower-value shrimp to cover their expenses.[130] Interestingly enough, union price floors for larger shrimp "were generally *at or below*" the prevailing market price, suggesting that the challenged arrangements did not have an anticompetitive effect.[131]

Until the arrangement was struck down, it was apparently successful at discouraging the harvesting and sale of smaller, less-mature shrimp in Mississippi. Mississippi shrimp prices were generally higher than those in neighboring Louisiana, reflecting the greater proportion of larger shrimp.[132] From this evidence, Professor Libecap concludes "private group regulations of fisheries could be an alternative to government regulation if that option were

---

127. *See id.* at 665 (finding the government's evidence was sufficient to present a jury question regarding violations of the Sherman Act and upholding the jury verdict of guilty).

128. *See* LIBECAP, *supra* note 7, at 88 (noting that the transcript of the *Gulf Coast* case indicates the actions of the union were intended to impact the harvest practices of the members); Ronald N. Johnson & Gary D. Libecap, *Contracting Problems and Regulation: The Case of the Fishery*, 21 AM. ECON. REV. 1005, 1008 (1982) (arguing that the Gulf Coast transcript and interviews of persons knowledgeable of the union suggest that price-fixing directed efforts toward larger, more valuable shrimp).

129. *See* LIBECAP, *supra* note 7, at 88–89 (describing how the association implemented a price flow in such a way that it directed harvests to later in the season when larger, more valuable shrimp were available).

130. *See* E. Paul Durrenberger, *Psychology, Unions, and the Law: Folk Models and the History of Shrimpers' Unions in Mississippi*, 51 HUMAN ORG. 151, 152 (1992) (highlighting the fact that shrimpers had to redouble their efforts in the 1950s as expenses increased considerably while domestic prices dropped).

131. LIBECAP, *supra* note 7, at 89.

132. *Id.*

politically acceptable."[133] It was not, and the GCSOA was successfully prosecuted for violating the Sherman Act.[134]

Twenty-five years later, shrimpers in Texas sought to set prices and informally limit the number of shrimp boats operating in Galveston Bay and San Antonio Bay. Local shrimpers were concerned that an influx of Vietnamese refugees would increase harvest levels and drive down prices.[135] The shrimpers reportedly agreed with Vietnamese refugees who had already settled in the Galveston Bay area to set prices and discourage further settlement in the area. The Federal Trade Commission considered these agreements, at least one of which included explicit price terms, to be in violation of the Sherman Act.[136] Thus, the agreements were never enforced. Local shrimpers nonetheless shared information about shrimp locations so as to disadvantage, and potentially discourage, newcomers into the bay shrimp fisheries.[137]

It is often noted that cooperation in the marine commons is no easy thing. Independent boat owners and operators may have competing interests and are difficult to organize. Collective action in domestic commercial fisheries is relatively rare. An individualistic culture among fishermen may also bear some of the blame. Shrimpers in the Gulf of Mexico are particularly notorious for their individualistic mindset. "You just can't organize shrimpers," says one

---

133. *Id.* at 90. Anthony Scott similarly observes that the GCSOA "did succeed for a while in regulating harvesting (mesh size and closed seasons). But, ultimately it did not succeed in regulating entry, effort or individual catches." Anthony Scott, *Obstacles to Fishery Self Government*, 8 MARINE RES. ECON. 187, 190 (1993). Of course, this failure may have been due, in part, to the antitrust prosecution.

134. *See* Gulf Coast Shrimpers & Oystermans Ass'n v. United States, 236 F.2d 658, 662–65 (5th Cir. 1956) (holding that the indictment and evidence against the GCSOA defendants were sufficient and that the trial court's charge to the jury was adequate, thereby upholding the jury verdict finding the defendants guilty of engaging in a combination or conspiracy in restraint of trade in violation of the Sherman Anti-Trust Act).

135. In some cases, opposition to the influx of Vietnamese immigrants was grounded in local racist sentiment and resulted in violence. *See, e.g.*, Vietnamese Fishermen's Ass'n v. Knights of the Ku Klux Klan, 518 F. Supp. 993, 1015–17 (S.D. Tex. 1981) (finding that defendants' provocative statements and overt acts created a situation that predictably would result in unlawful intimidation and acts of violence and granting a preliminary injunction to enjoin the defendants from using self-help tactics, including threats of violence and intimidation). The court also stated that "clearly, it is in the public interest to enjoin . . . threats of violence and intimidation and permit individuals to pursue their chosen occupation free of racial animus." *Id.* at 1016–17.

136. *See* Johnson & Libecap, *supra* note 128, at 1007 (noting that the FTC considered these agreements in violation of antitrust laws, in part because these agreements limited the number of boats in the Texas bays).

137. *See id.* (noting that this sharing of information is limited to small cliques so as to increase the cost of entry to newcomers who are denied access to this information).

shrimping captain.[138] Yet, the history of the GCSOA suggests another possibility. Shrimpers might not organize because when they sought to organize in the 1940s and 1950s in order to decrease the size, but increase the quality and value, of local shrimp catches, they were prosecuted for violations of federal antitrust laws.[139] Unions were fined and, in at least one case, their officers were sent to jail.[140] Thus, the failure of shrimpers' unions in the Gulf may not be "due to any peculiar psychology of fishermen but because it is against the law."[141]

B. Breaking the Unions

Gulf Coast Shrimpers was not an isolated case. In the 1930s and 1940s there were several antitrust actions against fishers' unions throughout the country. In some cases the suits were brought by government authorities. In others, private plaintiffs used the antitrust statutes to seek treble damages against the defendants.[142] In case after case, courts found against the fishers' associations and condemned their cooperative efforts as collusive attempts to restrain trade in seafood products.

In California, the federal government successfully prosecuted Local 36 of the International Fishermen & Allied Workers of America for conspiracy to "restrain trade" in "one of the most highly important and highly perishable articles of food given to mankind, namely fresh fish and crustaceans, coming into 'fishing ports' for sale to dealers."[143] Approximately 75% of the fishers operating out of southern California were members of Local 36.[144] Members of the union were convicted of setting minimum prices for which they would sell seafood to local dealers, agreeing to sell their catch solely to those dealers who

---

138. Durrenberger, *supra* note 130, at 151.

139. *See generally* Gulf Coast Shrimpers & Oystermans Ass'n v. United States, 236 F.2d 658 (5th Cir. 1956) (describing the case of a shrimpers association prosecuted for violating antitrust laws).

140. *See* Durrenberger, *supra* note 130, at 153 (discussing a case in which a judge found a Biloxi shrimpers' union in violation of antitrust laws and fined the union $2,500 and sentenced its officers to nine months in jail).

141. *Id.* at 151.

142. Under Section 4 of the Clayton Act, 15 U.S.C. §15 (2000), any person who is injured by actions which are illegal under federal antitrust law may file suit in federal district court and seek recovery of "threefold the damages by him sustained, and the cost of the suit, including a reasonable attorney's fee."

143. Local 36 of Int'l Fishermen & Allied Workers of Am. v. United States, 177 F.2d 320, 324 (9th Cir. 1949).

144. *Id.*

would contract with the union, and engaging in various tactics, including boycotts and picketing, to induce dealers to contract with the union.[145] The union ultimately sought to prevent nonmembers from fishing off the coast of southern California and selling their catch in southern California ports, thereby enabling the union to control the catch and charge higher prices.[146] Local 36, like the union defendants in most of the fishery cases, unsuccessfully sought to demonstrate that fishers' unions were subject to antitrust law exemptions provided to labor unions and certain types of agricultural cooperatives, including fishing cooperatives.[147]

The indictment of Local 36 acknowledged that "[e]xcept for the illegal restraints described hereinafter, a much greater volume of fresh fish and crustaceans would have been brought to the fishing ports . . . and sold, processed and distributed."[148] Regardless of whether the restrictions were adopted with conservation in mind, they had the same effect as would have conservation measures on the fishery: they reduced the volume of fish caught.[149] Yet, this reduction was part of Local 36's violation. By reducing output, Local 36 may have been helping to conserve fisheries off the Pacific Coast, but they were also "prevent[ing] the public in the territorial area from receiving a normal and usual supply of fresh fish" and maintaining noncompetitive prices.[150] Whether this reduction had broader economic impacts on fish markets was immaterial, as was whether the contract price was "reasonable." As the court noted, "[U]nless specifically authorized by legislation, a conspiracy to fix prices is in and of itself a violation" of the Sherman Act.[151] Conservation or other benefits were immaterial: "No inquiry as to substantiality, directness, effectiveness, or reasonableness of restraint is

145. *Id.* at 325.

146. *Id.*

147. *See id.* at 326 (rejecting the union's argument that its members acted as working original producers who fixed prices for products of their own labor and thus exempt from Clayton Act and Norris-La Guardia Act because the court found an employer-employee relationship between the dealers and fishermen).

148. *Id.* at 325. It should be noted that Local 36, as part of its defense, claimed that the ultimate impact of its agreements would be to reduce fish waste, as well as to increase fish production in the affected fisheries. *See id.* at 337 (requesting a jury charge that instructed the jury to weigh the state laws preventing waste of fish and to consider whether the fishermen's intentions were to increase or decrease fish production through their agreements).

149. *Id.*

150. *Id.* at 325.

151. *Id.* at 331.

permitted."[152] Similarly, the union's "exclusion of producers and dealers from the market" was a per se antitrust violation "in and of itself."[153]

That collusive arrangements among fishers and processors could have positive environmental impacts has been acknowledged by reviewing courts—and explicitly deemed irrelevant for purposes of the antitrust analysis. As the court held in *Manaka v. Monterey Sardine Industries*:[154]

> Such an association as that of the boat owners is not freed from the restrictive provisions of the anti-trust act, because they profess in the interest of conservation of important food fish to regulate the price and the manner of taking such fish "unauthorized by legislation and uncontrolled by proper authority."[155]

While the government may sanction collective efforts to control output or increase prices, courts deemed independent conservation efforts tantamount to the defendant unions "taking the law into their own hands."[156]

That fishery users are driven by their pursuit of profit to create associations and adopt measures that could facilitate the long-term conservation of ocean fisheries is not, as of yet, a consideration in the application of antitrust laws. Rather, as the Supreme Court noted in another context, "The interest of the public in the preservation of competition is the primary consideration."[157] Indeed, some courts viewed private cooperative efforts to reduce fish harvests as presumptively suspect. In *Columbia River Packers Association v. Hinton*,[158] another private antitrust action for damages against the Pacific Coast Fishermen's Union, the court suggested that to allow private associations to conserve fish stocks without government approval would unduly threaten the public's right to have fish:

> In any year when defendant's members did not "choose to fish", how would the consuming public get its needs of salmon, tuna, and other marine products from North Pacific waters? Since the union's contract does not guarantee a supply of fish, where would the canneries get fish, having agreed to look to the union for their sole supply? Surely reasonable men

---

152. *Id.*

153. *Id.*

154. Manaka v. Monterey Sardine Indus., Inc., 41 F. Supp. 531 (N.D. Cal. 1941).

155. *Id.* at 534.

156. Columbia River Packers Ass'n v. Hinton, 34 F. Supp. 970, 975 n.3 (D. Or. 1939).

157. Paramount Famous Lasky Corp. v. United States, 282 U.S. 30, 44 (1930). Environmental concerns, on the other hand, were not a significant public policy consideration at the time.

158. Columbia River Packers Ass'n v. Hinton, 34 F. Supp. 970 (D. Or. 1939).

> will agree that the public's interest in an important item of food supply should not be put in such jeopardy.[159]

Left out of the court's analysis is any consideration of where the "consuming public" might "get its needs" of fish should unrestrained harvests produce unsustainable levels of consumption in Pacific fisheries.[160] Surely high-priced fish are preferable to no fish at all.

Associations of boat owners and fishing crews were also subject to potential antitrust actions under state law. The Commonwealth of Massachusetts successfully enjoined the Atlantic Fishermen's Union and its members from continuing certain practices that the Commonwealth deemed to be anticompetitive under state law.[161] The union was accused of conspiring to "control completely not only the catching but the marketing and price" of all fish caught by boats operating out of Gloucester, Boston, and New Bedford, Massachusetts by operating a "selling room" through which all union members were required to sell their catch.[162] The stated purpose of the union was to improve working conditions and ensure that its members received a "fair share of the profits of our labor commensurate with the dangers and hardships" of fishing.[163] Most boat crews operating out of Massachusetts at the time consisted of the union's members.[164]

Among other things, the union was accused of maintaining super-competitive fish prices by "limiting the quantities of fresh fish which could be brought into the three ports named."[165] Specifically, the union adopted rules limiting the volume of fish of various species that fishers could bring in by a boat on each trip, and setting minimum prices for fish sales. According to the Massachusetts trial court, these "artificial[]" limitations on fish supplies made it "probable" that "fish cost more to the Massachusetts buyer and the

---

159. *Id.* at 975.

160. The district court's decision in *Columbia River Packers* was initially reversed on appeal on the grounds that the case involved a "labor dispute" between workers (the boatowners and crews belonging to the union) and employers (the packers), the district court lacked jurisdiction under the Norris-LaGuardia Act. Hinton v. Columbia River Packers Ass'n, 117 F.2d 310 (9th Cir. 1941). The Supreme Court reversed, finding the dispute one between "fish buyers" and "fish sellers" rather than workers and employers, but made no comment on the other antitrust or conservation aspects of the case. Columbia River Packers Ass'n v. Hinton, 315 U.S. 143, 147 (1942).

161. *See* Commonwealth v. McHugh, 93 N.E.2d 751, 755 (Mass. 1950) (explaining that the practice at issue violated state law).

162. *Id.*

163. *Id.* at 756.

164. *Id.* at 757.

165. *Id.* at 755.

Massachusetts ultimate consumer" than it would otherwise.[166] The Massachusetts Supreme Court concurred, finding that the union's "direct and intentional limitation of total production and the arbitrary fixing of prices" was unlawful, without even needing to consider "whether prices have actually reached a level which by some standard can be pronounced unreasonable."[167] The positive environmental benefits of reducing fish catches off the shores of Massachusetts were not considered.

Notwithstanding the successful state prosecution of the Atlantic Fishermen's Union's anticompetitive conduct, Patrick McHugh, an officer of the union, was subsequently subject to federal prosecution for his anticompetitive actions under the Sherman Act.[168] In this case, the court noted that McHugh's actions, through the union, "effectively limited the quantity and species of fish landed in New Bedford . . . . Had it not been for defendants' illegal restraints, a 'much greater' volume of scallops and other fish would have been brought into and sold in the port of New Bedford."[169] Again, the court did not consider that such actions might facilitate the long-run conservation of local fisheries.

Not all of the antitrust challenges to fishers' associations had clear conservation implications. In Hawaii, the Hawaiian Tuna Packers, Ltd. (HTP) sued Local 150 of the International Longshoremen's and Warehousemen's Union (ILWU) for conspiring to monopolize the local tuna market and control tuna prices.[170] HTP was the only tuna cannery on the then-territory of Hawaii.[171] It contracted with several boatowners to take in their tuna catch, sell fresh tuna in the Oahu market, and then purchase any remaining surplus for canning purposes.[172] Of the thirteen boatowners in Oahu, HTP had ten under contract at the time of the suit.[173] Prior to the creation of the union, the price paid by HTP for tuna was determined by mainland fish prices.[174]

---

166. *See id.* at 758 (detailing the findings of the trial court).

167. *Id.* at 760.

168. *See* McHugh v. United States, 230 F.2d 252, 254 (1st Cir. 1956) (finding that, inter alia, the indictment was sufficient and therefore upholding the District Court's judgment entered following a plea to a two-charge indictment alleging defendant, inter alia, had combined and conspired to restrain trade in violation of the Sherman Anti-Trust Act).

169. *Id.* at 254.

170. *See* Hawaiian Tuna Packers Ltd. v. Int'l Longshoremen's & Warehousemen's Union, 72 F. Supp. 562, 563–65 (D. Haw. 1947) (detailing the facts the plaintiff asserted in its pleading).

171. *Id.* at 563.

172. *Id.*

173. *Id.*

174. *Id.*

Beginning in 1946, the ILWU began to organize the crewmembers of the Oahu fishing boats, and some of the boatowners, into a union.[175] Once Local 150 was created, it sought to set minimum prices for tuna caught and sold by or to HTP.[176] When HTP refused to agree to the contract, Local 150 organized a work stoppage and threatened the crews of other boats that continued to deal with HTP.[177] HTP sued, and the court found Local 150 in violation of the Sherman Act. Like Local 36 in California, Local 150 committed a per se antitrust violation by conspiring to fix prices and thereby creating an unreasonable restraint on trade.[178]

Unlike in *Gulf Coast Shrimpers* or *Local 36*, Local 150's actions might not have reduced fishing pressure on the Hawaiian tuna fishery or otherwise served conservation goals. No doubt harvests were substantially lower during the boycott of HTP, but this was only a temporary measure. According to the court's decision, Local 150 believed that demand for tuna in Oahu would be relatively inelastic and unresponsive to increases in price.[179] As a result, HTP would be able to pass on higher tuna prices without a significant loss in sales. The published opinion in the case does not provide sufficient information with which to assess this claim.

It should be noted that whether or not the initial agreement had immediate conservation implications, had Local 150's efforts been allowed, perhaps as falling under the exemption provided for certain types of cooperatives, a viable collective institution may have remained to implement conservation measures should the need arise. It is certainly possible that the prosecution of fishermen's associations in times of relative abundance in ocean fisheries left fisheries more vulnerable to eventual depletion. The cumulative effect of the antitrust cases against fishers' unions was to constrain the ability of boatowners and their crews to create private associations for the management, maintenance, and even conservation of marine resources. Even where such agreements might conceivably pass legal muster, the threat of private antitrust suits for treble damages likely chilled the development of additional arrangements of this sort.[180]

---

175. *Id.*

176. *Id.*

177. *Id.* at 564.

178. *See id.* at 565 (finding that plaintiff satisfactorily pleaded a case alleging that defendants conspired to fix fish prices in violation of the Sherman Act as an unreasonable restraint of trade and thus denying defendant's motion to dismiss).

179. *See id.* at 563 (asserting that the union attempted to persuade the plaintiffs into accepting the fixed price by suggesting the plaintiff could resell at whatever price it pleased).

180. Yandle, *supra* note 121, at 50 ("The mere threat of Antitrust investigation adds

Union efforts were not perfect—most were clearly focused more on maximizing receipts for their members than on fishery conservation—but the effect was to inhibit the development of nongovernmental cooperative management structures that could have addressed fishery problems. That the unions' motivations were pecuniary or otherwise "impure" should be of little consequence; Adam Smith's "invisible hand" does not depend on noble intentions but self-interest.[181] From a conservation perspective, what matters is whether institutional arrangements developed—or could have developed—to ensure sustainable utilization of the resource. Congress would not enact the Magnuson Fishery Conservation and Management Act[182] for another two decades, and that act proved largely ineffective, as have fishery regulations generally.[183] It is possible that collusive fishery organizations, whatever their costs to consumers, would have done more to conserve marine resources and ensure their long-term supply. Yet, by declaring such conservation cartels illegal per se, courts effectively foreclosed any experimentation with such approaches to fishery conservation.[184]

C. Informal Associations

Not all collective arrangements among fishers are formalized in contracts. To the contrary, "there is well-documented evidence of coastal fishers sustaining a viable fishery by implementing their own system of rules governing access and use."[185] Particularly in local, homogeneous communities, customs and cultural norms may facilitate cooperation among otherwise-competing firms or individuals.[186] Such norms, although not set down in writing or otherwise formalized into law, "are capable of creating rules that

---

another chilling breeze to the already challenging climate for forming community organizations to conserve natural resources.").

181. *See* SMITH, *supra* note 122, at 26–27 ("It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest.").

182. Magnuson Fishery Conservation and Management Act, 16 U.S.C. §§ 1801–82 (2000).

183. *See supra* notes 61–78 and accompanying text (describing deficiencies of conventional fishery regulations).

184. *See* Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2 (1984) ("If the court errs by condemning a beneficial practice, the benefits may be lost for good. Any other firm that uses the condemned practice faces sanctions in the name of stare decisis, no matter the benefits.").

185. Donald R. Leal, *Community-run Fisheries: Preventing the Tragedy of the Commons*, *in* TAKING OWNERSHIP: PROPERTY RIGHTS AND FISHERY MANAGEMENT ON THE ATLANTIC COAST 183, 184 (Brian L. Crowley ed., 1996).

186. *See generally* OSTROM, *supra* note 32.

establish property rights."[187] Professor Ellickson notes that "members of a close-knit group develop and maintain norms whose content serves to maximize the aggregate welfare that members obtain in their workaday affairs with one another."[188] The "close-knit" nature of the group can arise from cultural homogeneity, such as that which one may find in an isolated community, like a small fishing village.[189] The closeness may also be the result of repeated interactions arising from shared occupations or experiences.[190] In the fishery context, such contract-facilitating norms are more likely in those industries, areas, and communities in which the participants have an extended course of dealing.

In practice, such norms may serve to create informal associations or groups that operate much like more formal cooperatives. In many earlier societies, norms and informal rules helped prevent the "tragedy of the commons" in common pastures and the like.[191] Today, such informal rules continue to regulate the use of common resources much as formal legal rules. Informal rules and customs can be formalized over time, but this need not be the case. Professor Ellickson's work on how traditional whaling communities developed substantive norms governing the right to capture and recover whale carcasses is one example of the evolution and eventual formalization of such rules.[192] While these rules were informal and customary, the existence of such rules was eventually recognized by courts in seeking to adjudicate disputes among whalers.[193]

---

187. ROBERT ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 203 (1991).

188. *Id.* at 167. Wealth-maximizing norms are those norms which "minimize the members' objective sum of (1) transaction costs and (2) deadweight losses arising from failures to exploit potential gains from trade." *Id.* at 184.

189. *See* Terry L. Anderson & Bishop Grewell, *Property Rights Solutions for the Global Commons: Bottom-Up or Top-Down*, 10 DUKE ENVTL. L. & POL'Y F. 73, 79 (1999) ("[H]omogeneity provides norms that can help resolve conflicts in closely knit groups.").

190. For example, Jonathan Macey suggests that it is "repeated interactions, not the closely knit nature of the groups, that lead to cooperation." Jonathan R. Macey, *Public and Private Ordering and the Production of Legitimate and Illegitimate Legal Rules*, 82 CORNELL L. REV. 1123, 1131 (1997). It is also worth noting that the dividing line between contract and "custom" is often illusory. As Cheung notes, "Some asserted 'customs' are, in fact, market practices in which the contractual terms are not obvious." Steven N.S. Cheung, *The Structure of a Contract and the Theory of a Non-Exclusive Resource*, 13 J.L. & ECON. 49, 57 n.16 (1970).

191. *See generally* OSTROM, *supra* note 32; Susan Jane Buck Cox, *No Tragedy on the Commons*, 7 ENVTL. ETHICS 49 (1985).

192. Robert C. Ellickson, *A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry*, 5 J.L. ECON. & ORG. 83, 88 (1989) (introducing three basic utilitarian norms developed by whalers).

193. *See, e.g.*, Swift v. Gifford, 23 F. Cas. 558 (D. Mass. 1872) (recognizing and upholding

In Maine, lobstermen have effectively divided local lobster fisheries into discrete territories and informally agreed to limit the lobster catch.[194] So-called "harbor gangs" enforce these boundaries among themselves and against outsiders.[195] Only gang members are allowed to harvest lobsters in designated areas. There is no formal legal prohibition on outsiders fishing in gang territories, but the boundaries are defended through custom and self-help.[196] The regime exists "only because of the benign neglect of the state."[197] Although they are informal, these arrangements effectively create local monopolies that limit entry and consumption.[198] The successful enforcement of such arrangements reduces overcapitalization and increases fishery incomes in what would otherwise be open-access fisheries. Political developments have weakened some of the territorial claims, but where the informal territories are enforced, lobster catch productivity is higher and fishing pressure is reduced.[199]

While such informal systems can be effective in some circumstances, they are vulnerable to political, economic, and social change. A particular weakness of such systems is that they have difficulty with outsiders.[200] Informal systems work only so long as all those participating understand the common rules, or if the informal entity has a means of excluding outsiders or enforcing its internal rules. Lobstering territories may be enforced among members of a close-knit community through customs and norms. Those who have participated in the lobster fishery for years understand the informal rules and the expectations of others within the community. Enforcing territory against outsiders is more

---

whalers' custom).

194. *See generally* James M. Acheson, *The Lobster Fiefs Revisited*, *in* THE QUESTION OF THE COMMONS 63 (Bonnie J. McKay & James M. Acheson eds., 1987) (noting the effectiveness of the Maine lobstermen's territorial arrangements).

195. *See id.* at 40–41 (noting that "[o]nce a new fisherman has gained admission to a 'harbor gang', he is ordinarily allowed to go fishing only in the tradition territory of that harbor" and discussing the consequences of territorial boundary violations imposed by fellow lobstermen (citations omitted)); Donald R. Leal, *Cooperating in the Commons: Case Studies in Community Fisheries*, *in* WHO OWNS THE ENVIRONMENT? 283, 290–91 (P.J. Hill & R.E. Meiners eds., 1998) (discussing the extralegal means employed by Maine fishermen in order to defend their claimed area).

196. *See* Acheson, *supra* note 194, at 40 ("From the legal view, anyone who has a license can go lobster fishing anywhere. In reality far more is required.").

197. *Id.* at 80.

198. *See* Gordon, *supra* note 34, at 134 (stating that some lobstermen in the Atlantic "have banded together into a local monopoly, preventing entry and controlling their own operations").

199. *See* Acheson, *supra* note 194, at 52 ("We obtained unmistakable evidence that reduced fishing effort in the perimeter-defended areas has both biological and economic benefits.").

200. *See* Leal, *supra* note 185, at 188 (discussing the difficulties communities face in limiting entry into the commons).

difficult, however. The informal nature of the arrangement limits the legal recourse of members who feel another has infringed upon their territory. As a result, members must resort to extra-legal means to enforce their arrangements.[201] In the case of the lobster "harbor gangs," if warnings to observe traditional territories are not heeded, gang members will cut the buoy lines on the lobster traps of the offending fisher.[202] Similarly, albeit less forcefully, shrimpers in the Gulf of Mexico sought to disadvantage newcomers by not sharing information about the fishery with outsiders.[203]

Many community-based management systems "came about because government officials were uninterested, leaving local fishers free to design workable arrangements among themselves."[204] More formal arrangements would be more stable and easier to enforce against outsiders. Were these agreements formalized, however, they would almost certainly be illegal. A written contract specifying limitations on fishing practices and territories would constitute the sort of restraint of trade antitrust condemns.[205] As a result, the property rights are less secure and dependent upon the community's ability to maintain relative homogeneity and agreement.

D. Exempt Activities

Antitrust law is riddled with exemptions. Some of the exemptions are judicially created, such as that for baseball.[206] In other instances, Congress explicitly exempted politically preferred constituencies, such as labor unions or

---

201. In the absence of formal state sanction, "to limit entry, a community must be able to threaten credible force to exclude individuals not sharing its perspective." *Id.*

202. *See* Acheson, *supra* note 194, at 41 (noting that if a person persistently violates the territorial boundaries "his traps will be pulled, the buoy, toggles and warp cut off, and the trap pushed over in deep water where he has little chance of finding it").

203. *See supra* note 137 and accompanying text (discussing the efforts of shrimpers to disadvantage and discourage newcomers to the shrimping business).

204. Leal, *supra* note 185, at 199.

205. An agreement in restraint of trade need not be formal to be prosecuted. Formalized agreements are, however, much easier to prosecute, as it is easier to prove that the parties to the agreement conspired to engage in anticompetitive behavior.

206. *See, e.g.*, Flood v. Kuhn, 407 U.S. 258, 282 (1972) (stating that although "[p]rofessional baseball is a business and it is engaged in interstate commerce" it is an aberration that enjoys "exemption from federal antitrust laws"); Fed. Baseball Club of Baltimore, Inc. v. National League of Prof. Baseball Clubs, 259 U.S. 200, 209 (1922) (exempting baseball from federal antitrust laws). Other sports leagues have not been so lucky. *See, e.g.*, Haywood v. National Basketball Ass'n, 401 U.S. 1204, 1208 (1971) ("Basketball, however, does not enjoy exemptions from the antitrust laws."); Radovich v. National Football League, 352 U.S. 445, 452 (1957) (subjecting football to federal antitrust laws).

agricultural cooperatives, from the limits imposed by the Sherman Act and other antitrust statutes.[207] The Fishermen's Collective Marketing Act (FCMA) provides a limited exemption from antitrust scrutiny for certain collective arrangements.[208] Specifically, the FCMA authorizes "persons engaged in the fishing industry" to "collectively catch[], produc[e], prepar[e] for market, process[], handl[e] and market[] . . . such products of said persons so engaged."[209] Qualifying associations must be "operated for the mutual benefit of the members thereof" and deal primarily in the products of its members, as opposed to nonmembers.[210] This exemption was modeled on a similar exemption provided to qualified agricultural cooperatives under the Capper-Volstead Act[211] and is interpreted in much the same manner.[212]

In practice, the FCMA only exempts the specified activities. Therefore, a collective marketing association is not exempt from all antitrust scrutiny merely because some of its activities fall within the confines of the Act. For example, an otherwise legal cooperative marketing association could not engage in otherwise prohibited boycotts or concerted refusals to deal with noncooperating dealers.[213] Thus, insofar as the GCOSA sought to set prices and prevent nonparticipating shrimpers and oystermen from selling their catch to contracting packers, it was not protected by the FCMA.

Another requirement of the FCMA is that all association members be qualifying firms under the Act.[214] That is, a defendant "must establish more than just the fact that *he* is qualified to act collectively under the Act, but he must also establish that *all* those with whom he is allegedly associated are likewise entitled to the Act's protection."[215] Thus, when Samuel Hinote, CEO of Delta Pride Catfish, Inc., was indicted for conspiring to fix prices in violation of the Sherman Anti-Trust Act, his motion to dismiss the indictment

---

207. For a list of exemptions, see WILLIAM F. SHUGART, THE ORGANIZATION OF INDUSTRY 333–34 (1997).

208. 15 U.S.C. § 521 (2000).

209. *Id.*

210. *Id.*

211. 7 U.S.C. § 291 (2000).

212. *See, e.g.*, United States v. Hinote, 823 F. Supp. 1350, 1353 n.4 (S.D. Miss. 1993) ("[T]he two Acts provide exemptions from antitrust liability for essentially the same activities.").

213. *See* Local 36 of Int'l Fishermen & Allied Workers of Am. v. United States, 177 F.2d 320, 334 (9th Cir. 1949) (explaining that although an association under the FCMA is permitted to fix prices on behalf of itself or its members, it cannot attempt to do so using tactics which are not free and voluntary or by using any other illegal means).

214. 15 U.S.C. § 521 (2000).

215. *Hinote*, 823 F. Supp. at 1353 n.5.

was denied for failure to meet this FCMA requirement.[216] Delta Pride, a catfish processor, was a qualified fishing firm because all of its shareholders were catfish farmers.[217] Therefore, Delta Pride could process its members' harvest and market their product at a set price without violating antitrust constraints.[218]

The government prosecuted Hinote because Delta Pride associated with other firms not entitled to the FCMA's protection.[219] Specifically, Delta Pride agreed to fix catfish prices with several other catfish processors, including two—Country Skillet Catfish Company and Farm Fresh Catfish Company—which were more fully integrated firms.[220] Merely because Country Skillet and Farm Fresh owned or leased catfish ponds did not qualify them for the FCMA exemption.[221] Rather, as integrated firms that independently marketed and distributed their own product, Country Skillet and Farm Fresh were not the sort of small, independent producers that the FCMA was intended to benefit.[222] As interpreted by federal courts, the FCMA exemption appears to be limited to horizontal arrangements among small producers.[223] Vertical associations or collective efforts with vertically integrated firms are likely to forfeit protection from FCMA prosecution, even though such arrangements could have a pro-competitive effect.[224]

Any cooperative agreement is inherently unstable and prone to cheating, which is why cartels typically fail. As output is restricted and prices rise, cartel members face increasing incentives to increase output in violation of the cartel agreement.[225] This pressure, over time, tends to break up the cartel arrangement. The same is true for more benign collective agreements that likewise seek to prevent free-riding by members. For such agreements to survive, there must be an enforcement mechanism so that each participant can

---

216. *Id.* at 1360.

217. *Id.* at 1354 n.8.

218. *Id.*

219. *Id.* at 1352.

220. *See id.* at 1353 n.5 (stating that the defendant's co-conspirators, Country Skillet and Farm Fresh, were not qualified to act collectively).

221. *Id.* at 1359.

222. *See id.* (stating that extending the FCMA exemption to fully integrated producers would defeat the Act's purpose of protecting independent producers).

223. *See id.* at 1354 (noting that the exemption has not been permitted when members of an association are middlemen or processors).

224. *See id.* (explaining that prior Supreme Court cases established that cooperatives between farmers and middlemen are not protected by the Act and ultimately concluding that cooperatives between farmers and fully integrated firms are similarly not protected).

225. *See* 1 HANDBOOK OF INDUSTRIAL ORGANIZATIONS 420–21 (Richard Schmalensee & Richard D. Willig eds., 1989) (explaining the incentives to cheat that arise in cartels).

know with reasonable certainty that abiding by the terms of the agreement will not place him at a competitive disadvantage.[226] An agreement with a processor to set a given price or establish a quota can provide just this function by eliminating (or at least reducing) the incentive that a member of the agreement would have to cheat. Specifically, associations among fish producers and processors may facilitate conservation agreements that would otherwise be unenforceable. Therefore, the exclusion of such arrangements from protection under the FCMA limits the environmental benefit of the exemption.

E. Harvesting Cooperatives

Despite the prosecution of fishers' unions in the 1930s and 1940s, there have been recent organizational efforts by fishing firms to create voluntary cooperatives that, among other things, collectively market products or allocate catch shares among members. Such efforts have evolved largely due to the desire among some fishers to rationalize the management of fisheries plagued by overcapitalization, waste, and inefficiency because of economic and regulatory pressures to maximize catches. In the absence of property-oriented changes in fishery regulatory regimes, such as a move toward Individual Transferable Quotas (ITQs), some fishing communities are inclined to reconsider cooperative efforts that can create informal property rights.[227]

At first it might seem that cooperative efforts to create informal property rights in shares of a seasonal fishery harvest—essentially informal ITQs—would run afoul of antitrust prohibitions. As Sullivan notes, "Collective harvesting arrangements among fishermen have commonly been considered to fall within the 'market allocation' class of *per se* violations that are illegal" under federal antitrust law.[228] In fisheries where catch limits and license requirements have already been imposed by regulatory authorities, however, the federal government has been more receptive to cooperative arrangements, such as harvesting cooperatives, that allocate catch shares among licensed fishers.

---

226. *See id.* at 425 (explaining that procedures deterring defection must be created so that members do not free ride and unfairly increase their profits).

227. *See* Joseph Sullivan, *Harvesting Cooperatives and U.S. Antitrust Law: Recent Developments and Implications*, paper presented at IIFET 2000 (2000), at 1 ("Given the uncertain future of [IFQ systems], fishermen seeking rationalization will logically turn to private agreements allocating harvesting privileges."), *available at* http://oregonstate.edu/dept/IIFET/2000/speakers.html.

228. *Id.* at 2.

Under the Magnuson Act,[229] the federal government imposed strict catch limits on the U.S. Pacific Coast whiting fishery.[230] Fishing licenses were limited but transferable.[231] The total allowable catch (TAC) was divided among several classes of fishing firms: on-shore processing plants, "mothership" processors, and catcher/processors.[232] Within each class the fishery adopted an "Olympic" system, whereby any licensed fishing firm was entitled to catch as much of the harvest allocated to its class as it was able. In practice, this encouraged the "race to fish," as each fishing firm sought to harvest as many fish as it could within a short period of time so as to capture the greatest possible share of the harvest allocated to its class.[233] While the total catch limit helped to conserve the fishery, the competitive pressure of the Olympic system fostered overcapitalization, inefficiency, and waste, including substantial bycatch.

By 1996, there were only four catcher/processors left in the Pacific Coast whiting fishery.[234] These firms recognized that they could harvest the total allowable catch for their class in a far more efficient and cost-effective manner if they allocated portions of the TAC amongst themselves, thereby eliminating the "race to fish."[235] Under the existing rules, the pressure to catch fish quickly was so great that the entire quota would be harvested in just fourteen days.[236] Were the race to be limited, however, the firms recognized that they could cut costs and increase product recovery by as much as 25%.[237]

---

229. 16 U.S.C. §§ 1801–82 (2000).

230. *See* Sullivan, *supra* note 227, at 4 ("The Pacific whiting fishery . . . is managed under a strict annual sectoral harvest limit.").

231. *See id.* at 4–5 (discussing the limits on licenses and the leasing of operators' shares by more efficient operators).

232. Press Release, U.S. Dep't of Justice, Justice Department Approves Fish Catchers/Processors Proposal to Allocate Amongst Themselves the Amount of Government-Regulated Pacific Whiting They Can Harvest (May 20, 1997), *available at* http://www.usdoj.gov/atr/public/press_releases/1997/index97.htm. A "mothership" processor is a ship that has on-board processing capability but does not itself catch fish. A catcher/processor is a ship that catches and processes its own fish on-board. *Id.*

233. For discussion of the "race to fish," see *supra* notes 71–78 and accompanying text.

234. *See* Sullivan, *supra* note 227, at 4 ("By late 1996, a fairly restrictive limited entry license program . . . effectively limited the catcher/processor fleet to ten vessels owned by four companies.").

235. *See id.* ("[T]he four companies had reached a common understanding that nationalized operations could increase product recovery by as much as 25%, while cutting costs of operations.").

236. *See* Bruce Ramsey, *Companies Agree to End "Race for Fish,"* SEATTLE POST-INTELLIGENCER, May 31, 1997, at B8 (discussing the "14-day 'race for fish'").

237. Sullivan, *supra* note 227, at 4 (describing the industry understanding that a rationalized operation would increase productivity and cut costs).

In 1997, the catcher/processors in the Pacific Coast whiting fishery created the Pacific Whiting Conservation Cooperative (PWCC).[238] The primary purpose of the cooperative was to allocate portions of the catch among its members, creating informal property rights in the harvest similar to ITQs.[239] Because there were so few firms involved, each sharing a common interest, the coordination costs were low enough to reach a quick agreement on how to divide the catch.[240] They further agreed to make their allocations transferable among each other.[241] The Antitrust Division of the Justice Department consented to the formation of the cooperative because the four firms agreed to continue processing, marketing, and selling their products on a competitive basis, and because the agreement would not further reduce fishery output.[242] Joel Klein, then-acting Assistant Attorney General for Antitrust, observed that the harvest allocation was "unlikely to reduce output or increase price under any scenario."[243] If anything, the cooperative would reduce prices and increase the volume of fish available to consumers from the same harvest level by increasing efficiency.

The PWCC yielded impressive results, economically and ecologically. As under ITQ programs, fishing efficiency increased as "more efficient operators leased shares from less efficient ones" and firms reduced the number of fishing vessels in the fishery.[244] The recovery rate—the amount of saleable product recovered from fish—increased substantially.[245] Indeed, the four firms produced over five million pounds more food from the same volume of fish caught—often of higher quality—while using fewer boats.[246] The incidental catching of non-target fish species—so-called "bycatch"—was cut dramatically

---

238. *Id.* at 5.

239. *See id.* (explaining that the membership agreement of the cooperative embodied the harvesting share allocation agreement reached by the parties).

240. *See id.* ("[T]he companies were able to negotiate harvest shares quickly and efficiently . . . in a session that lasted less than half a day.").

241. *Id.*

242. *See id.* (noting that the antitrust division indicated that an agreement improving efficiency and productivity and providing for competitive marketing of products would receive a favorable review and later stating that the cooperative's agreement received favorable review).

243. Ramsey, *supra* note 236 (quoting Joel Klein, then acting United States Assistant Attorney General).

244. Sullivan, *supra* note 227, at 5.

245. *Id.* at 6.

246. *See* Justin Leblanc, *United States' Fishery Cooperatives: Rationalizing Fisheries through Privately Negotiated Contracts*, *in* USE OF PROPERTY RIGHTS IN FISHERIES MANAGEMENT, 404/2FAO FISHERIES TECHNICAL PAPER 215, 216 (Ross Shotton ed., 2000) (noting that the PWCC "resulted in the production of an additional 5,269,435 pounds of food from the same amount of fish").

as well.[247] Enforcement of seasonal catch allocations also improved, as the cooperative contracted with a fishery harvest monitoring service to enforce the arrangement and prevent cheating.[248]

The PWCC was so successful that it spawned another private harvesting agreement in the North Pacific pollock fishery. Notably, the four firms involved in organizing the PWCC were instrumental in helping catcher/processors in the pollock fishery to form the Pollock Conservation Cooperative (PCC).[249] Passage of the American Fisheries Act[250] further facilitated creation of the PCC, as it subdivided the pollock fishery into sectors as already had been done with the whiting fishery.[251] The allocation of harvest shares through the PCC eliminated the "race to fish," enabling a longer (and more ecologically sound) fishing season, increasing harvest efficiency, reducing overcapitalization, and facilitating other conservation efforts.[252] Specifically, the operating season approximately doubled in length, and cooperative members increased the recovery of saleable product by 20%.[253] As with the PWCC, the Justice Department declined to prosecute, citing the potential pro-competitive impacts of the cooperative.[254]

---

247. *See* Leblanc, *supra* note 246, at 216 ("The PWCC has demonstrated that a cooperative approach to fishery operation can . . . decrease bycatch."); Sullivan, *supra* note 227, at 5 (noting that "the bycatch for yellowtail rockfish . . . fell from 2.47 kilograms . . . to .99 kilograms of rockfish per metric ton of whiting").

248. *See* Sullivan, *supra* note 227, at 5 (noting that the members hired a private fisheries monitoring service to track members' catch amounts).

249. *See id.* at 6 (stating that the apparent success of the PWCC caused the four PWCC companies to attempt a comparable agreement in the Pollock fishery).

250. American Fisheries Act, Pub. L. No. 105-277, 112 Stat. 2681 (1998).

251. *See* Scott C. Matulich et al., *Fishery Cooperatives as an Alternative to ITQs: Implications of the American Fisheries Act*, 16 MARINE RES. ECON. 1, 3 (2001) (stating that "the AFA implemented cooperatives differentially among sectors"); Sullivan, *supra* note 227, at 7 (explaining that the American Fisheries Act divided the Bering Sea Pollock fishery into three sectors).

252. *See generally* AT-SEA PROCESSORS ASSOCIATION, PRELIMINARY ASSESSMENT OF THE POLLOCK CONSERVATION COOPERATIVE (1999) (discussing the PCC and its various benefits).

253. Criddle & Macinko, *supra* note 87, at 463–64 (stating that under the PCC the operating season increased from seventy-five days to 149 days and product recovery per fish increased by 20%).

254. Press Release, Department of Justice, Justice Department Approves Proposal by the Pollock Conservative Cooperative (Feb. 29, 2000), *available at* http://www.usdoj.gov/opa/pr/2000/February/086at.htm. In 2002, a fishing cooperative was adopted for Alaska's Chignik salmon fishery as well. *See* Wesley Loy, *Co-op Revolutionizes Chignik Fishery*, ANCHORAGE DAILY NEWS, June 22, 2002, at D1 ("[M]ost of the approximately 100 boat owners at Chignik have joined a cooperative to catch their fish.").

The imposition of total catch limits was a precondition to the successful creation of both the whiting and pollock harvesting cooperatives. Once fishery output was limited by regulation, antitrust enforcers had little reason to fear that cooperative arrangements to allocate portions of the market would reduce consumer welfare by further reducing output and increasing prices. Indeed, by eliminating the "race to fish" and increasing fishing efficiency, the market allocation agreements had the opposite effect. The cooperatives also produced ecological benefits, most notably the reduction in bycatch and greater seasonal balance in fishing patterns. Their conservation value is limited, however, because the cooperatives may not agree to reduce the total catch below the level already set by the government. Thus, insofar as total catch limits in these fisheries is not set at a sustainable level, there is little the cooperatives can do to address the problem. Nonetheless, the cooperatives illustrate the substantial economic and ecological benefits that can arise from private ordering in marine fisheries that operates to create individual property rights to fish harvests through contract.

F. Antitrust and ITQs

One relatively successful government intervention to address the tragedy of the marine commons has been the creation of "individual transferable quotas," or "ITQs," in marine fisheries.[255] One aim of ITQ systems is to conserve commons by setting a total allowable catch and then encouraging greater efficiency within the fishery by apportioning transferable percentage shares—quota—to participating fishers. As such, ITQs prevent the tragedy of the commons by restricting harvests to a sustainable level. There is some irony here, as Professor Yandle notes, because one could view the formation of ITQs as the creation of a "collusive ring under the protection of statute law."[256] As discussed above, were a private association to try and impose a total allowable catch on a local fishery, it would violate federal antitrust laws, even if it did not then seek to apportion shares to association members in the form of ITQs.[257]

The nature of the antitrust concern in the ITQ context is slightly different than that discussed above. Once an ITQ system is implemented, it is generally expected that, barring substantial transaction costs, more efficient fishers will

---

255. *See supra* notes 81–90 and accompanying text (discussing the development of ITQs).

256. Yandle, *supra* note 121, at 46.

257. *See supra* Parts IV.A & B (describing agreements within the fishery context that were held to be in violation of the Sherman Act).

purchase quota from less efficient fishers.[258] This sale could well produce some consolidation within the fishery to the detriment of smaller fishing firms. An antitrust concern arises because of the potential for a small number of large, but efficient, fishers to achieve market power through consolidation and the acquisition of quota from other fishers. While ITQs are generally regarded as a positive step toward more sustainable fishery management, some environmental groups oppose the creation of ITQs due to concerns about consolidation and the potential for corporate control of large portions of fisheries in which ITQs are adopted.[259]

Milliken suggests an individual or group could obtain market power by acquiring a substantial portion of available ITQs and then utilize the market power to extract monopoly rents.[260] This acquisition could occur "horizontally," if the quotas are acquired by one or more fishers, or "vertically," if the quotas are obtained by processors or wholesalers. As noted above, collusion between boat owners and fishers, on the one hand, and processors and wholesalers on the other, has raised antitrust concerns.[261] To address this concern, Milliken suggests that all ITQ plans "include a maximum ownership provision" limiting the quota percentage that a single entity may own or control.[262]

Federal law seeks to mitigate concerns about market power by limiting the ability of a single entity to acquire a disproportionate share of quota in a given market. The Magnuson Act explicitly requires that each Fishery Management Plan is "carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges."[263] Federal regulations further provide that any allocation scheme deter any entity from acquiring an excessive share of fishing rights or market power over the

---

258. *See supra* note 231 and accompanying text (discussing the PWCC and the practice of leasing shares from less efficient operators to increase efficiency).

259. *See, e.g.*, FRIENDS OF THE EARTH, PROTECT OUR FISHERIES, *at* http://www.foe.org/camps/eco/ifq (last visited Feb. 7, 2004) (arguing that ITQ systems could cause fishery consolidation by "large fishing corporations") (on file with the Washington and Lee Law Review); *see also supra* notes 91–92 and accompanying text (describing these concerns).

260. *See* William J. Milliken, *Individual Transferable Fishing Quotas and Antitrust Law*, 1 OCEAN AND COASTAL L. J. 35, 44 (1994) ("[O]ne antitrust concern in ocean fisheries is that an individual or a group of individuals could monopolize the market, that is, obtain an excessive share of licenses or percentage of the quota, and subsequently use that position to exact unfair economic advantage over consumers.").

261. *See supra* Parts IV.A & B (describing agreements within the fishery context that were held to be in violation of the Sherman Act).

262. Milliken, *supra* note 260, at 50 (1994). Sullivan raises a similar concern and also suggests consideration of share aggregation limits. Sullivan, *supra* note 227, at 9.

263. 16 U.S.C. § 1851(a)(4)(C) (2000).

fishery.[264] This concern must be explicitly addressed in the implementation of ITQ proposals.

When the National Marine Fisheries Service (NMFS) approved the creation of ITQs in the Atlantic surf clam and ocean quahog fishery, it explicitly addressed concerns that the ITQ regime would produce "a massive consolidation of vessels" in the fishery.[265] While NMFS acknowledged that such "massive consolidation" was possible, it concluded that the allocation distribution system and expected high quota prices would make such consolidation unlikely, and that some consolidation would be acceptable if it increased efficiency.[266] Further, NMFS noted that it would review future allocation transfers and "advise the Council and the U.S. Department of Justice when it appears an excessive number of shares are held by one person."[267]

Two groups of fishers and seafood processors challenged the plan to implement ITQs in the Atlantic surf clam and ocean quahog fishery in federal district court.[268] These plaintiffs alleged, among other things, that the plan would result in excessive consolidation as smaller, less efficient fishers sold their quota shares to their larger competitors.[269] These plaintiffs alleged that two fishers already held approximately 40% of the annual quota for ocean quahogs, and that further consolidation was likely.[270] While the court declared that the 40% figure did "give pause," it rejected the complaint because NMFS explicitly considered these concerns in developing the ITQ plan and left open the possibility of a referral to the Department of Justice should a fisher seek to monopolize the fishery.[271] Other fisheries utilizing transferable quota schemes have also addressed concerns about consolidation.[272]

---

264. 50 C.F.R. 602.14 (2000).

265. Atlantic Surf Clam and Ocean Quahog Fishery, 55 Fed. Reg. 24,184, 24,186 (June 14, 1990) (codified at 50 C.F.R. 652).

266. *See id.* ("The . . . allocation distribution system and the high price expected for allocation shares will not be conducive to individuals acquiring excessive shares of the resource to any greater extent than the current circumstances of the fishery permit.").

267. *Id.*

268. Sea Watch Int'l v. Mosbacher, 762 F. Supp. 370 (D.D.C. 1991).

269. *See id.* at 380 ("Plaintiffs argue that [the plan] creates incentives for consolidation of the quahog fishery.").

270. *Id.*

271. *Id.* As a result of this decision, Mannina suggests that it is unlikely that any ITQ plan approved by NMFS could be challenged on the grounds that it allows an entity to acquire an "excessive share" of quotas in a fishery in violation of the Magnuson Act. George J. Mannina, Jr., *Is There a Legal and Conservation Basis for Individual Fishing Quotas?*, 3 OCEAN AND COASTAL L.J. 5, 27 (1997).

272. Another example is the fishery management plan governing the Pacific Coast sablefish fishery, which limits the maximum number of fishing permits a single individual or corporation

The United States government is not alone in seeking to limit the potential concentration of quota under an ITQ regime. In Iceland, there are species-specific ceilings on the portion of ITQs that a single fishing firm may own.[273] Concerns about concentration may be exaggerated. Professor Repetto reports that Canada's sea scallop fishery has seen only modest consolidation.[274] One fish processor purchased quota for approximately 31% of the catch, but the majority of the quota remains in the hands of those to whom it was allocated in 1986, providing "little evidence . . . that a rights-based regime results in monopolization of the fishery."[275] Professor Gissurarson reports similar findings from Iceland, where the largest firm still held quota for less than 6% of the total catch as of the 1998–99 season.[276]

Insofar as antitrust concerns lead to limitations on the transferability of quota under ITQ regimes, this will reduce the potential efficiency gains of the ITQ regime from fleet consolidation.[277] On the other hand, fishers with ITQs no longer need to race to catch the most fish in a short period of time. This both increases safety for fishers, and it reduces crowding and potentially harmful fishing practices. "Fishermen with lower harvesting costs, in turn, have more money to invest in resource improvement."[278] Their right to a portion of the catch internalizes the returns of fishery-wide conservation decisions.[279] Since the implementation of ITQs in New Zealand, quota holders have begun to invest voluntarily in independent fishery research and monitoring efforts.[280] Among other things, this research has helped reduce bycatch and

---

may own. *See* Fisheries off West Coast States and in the Western Pacific Coast Groundfish Fishery, Amendment 14, 66 Fed. Reg. 41,152, 41,153 (2001) (explaining that this amendment "allows some consolidation, but not unlimited consolidation, because it could cause excessive concentration of control.").

273. *See* GISSURARSON, *supra* note 85, at 23 ("[N]o fishing firm may control more than 10% of the ITQs in cod and haddock and more than 20% of the ITQs in saithe, redfish, Greenland halibut, herring, deep sea shrimp and capelin.").

274. *See* REPETTO, *supra* note 86, at 16 (noting that Canada's sea scallop fishery has seen some consolidation but indicating that it has not been significant).

275. *Id.*

276. *See* GISSURARSON, *supra* note 85, at 53 ("The two largest firms . . . each held 5.5% of the total demersal quotas in 1998/9.").

277. *See id.* at 40 (noting that the system would be more efficient if ITQs were freely transferable and issued to individuals and firms rather than vessels).

278. Rieser, *supra* note 54, at 823.

279. *See* REPETTO, *supra* note 86, at 9 ("Internationalizing the returns to conservation decisions is one of the characteristics of rights-based fishing regimes.").

280. *See* Michael Harte, *Opportunities and Barriers for Industry-Led Fisheries Research*, 25 MARINE POL'Y 159, 160–61 (2001) (explaining that in response to the quota management system, New Zealand quota owners have organized management associations that, among other things, collect money to finance research); Rieser, *supra* note 54, at 823–24 (stating that IFQ

harm to nontarget species populations, including seabirds and marine mammals.[281] ITQs have encouraged greater private investment in fishery research in Canada's scallop fishery as well.[282] These gains are due, in part, to the efficiency improvements brought about by ITQs. Limitations on the transfer of ITQs to the most efficient fishers, whether motivated by concerns over consolidation or a desire to preserve local fishing communities, can reduce efficiency gains on the margin as well as the consequent environmental benefits.[283] Thus, even when not prohibiting the formation of conservation cartels, antitrust law has the potential to frustrate conservation in the marine commons.

V. Conservation Through Collusion in Other Contexts

Fisheries are not the only context in which antitrust principles may conflict with conservation goals. In principle, the conflict between conservation and competition policy can occur with any open-access common pool resource. Antitrust concerns are present wherever private cooperative action operates to conserve the underlying resource by reducing collective utilization rates. This point is not merely theoretical. Antitrust principles and conservation concerns have also come into conflict in the context of underground oil deposits, precipitating state interventions to facilitate more efficient resource utilization.[284] It is also possible that antitrust could inhibit cooperative efforts

---

holders in New Zealand "are beginning to engage in beneficial management behaviors such as monitoring catches, studying stock abundance, and funding exploratory fishing operations to develop new fisheries").

281. Harte, *supra* note 280, at 160 ("Significant research effort has reduced non-target bycatch and seabird and marine mammal bycatch.").

282. *See* REPETTO, *supra* note 86, at 14 (noting that the Canadian industry has financed a costly research program).

283. Indeed, some commentators attribute at least some of the efficiency and effectiveness of fishing cooperatives, such as the PWCC and PCC, to the fact that they "are unencumbered by the restrictions on share concentration, absentee ownership, leasing, and transfer" that are typically imposed on ITQ regimes. Criddle & Macinko, *supra* note 87, at 465.

284. As used here, "conservation" is defined in its traditional sense as the effort to maximize the productive use of natural resources. *See* SAMUEL P. HAYS, CONSERVATION AND THE GOSPEL EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT 1890–1920, at 1–2 (1959) (describing the essence of environmental conservation as "rational planning to promote efficient development and use of all natural resources"). In the context of oil deposits, conservation goals are served by policies that maximize the production of oil from a given deposit. The pursuit of conservation may conflict with other environmental goals, however, insofar as the production and combustion of oil is associated with other environmental problems.

to control pollution. While the claim in the pollution context is certainly more speculative, it nonetheless highlights the conceptual tension between the demands of conservation and the proscriptions of antitrust law.

A. Oil Fields

Much like fisheries, underground oil reservoirs, if unowned, have the properties of an open-access commons.[285] Although property rights to the surface typically include reserved rights to minerals below, oil reservoirs typically stretch across numerous surface properties. Under the rule of capture, landowners acquire property rights to oil upon extraction. This rule gives each surface owner an incentive to maximize his or her production at the expense of the whole.[286] This incentive is heightened due to the migratory nature of oil deposits. Extracting oil from one point in the reservoir reduces the underground pressure in that part of the deposit, drawing oil from elsewhere within the reservoir.[287] Therefore, by drilling first and extracting oil more rapidly than other users, a firm can capture a greater share of the deposit.[288] Insofar as all users face the same incentive, all are encouraged "drill and drain."[289] Such activities have their costs, however. Rapid extraction from an oil deposit reduces the volume of recoverable oil from an underground petroleum reservoir.[290] Left to their own devices, multiple firms with rights to

285. *See* Gary D. Libecap, *Contracting for Property Rights*, *in* PROPERTY RIGHTS: COOPERATION, CONFLICT, AND LAW 142, 157 (Terry L. Anderson & Fred S. McChesney eds., 2003) (stating that "[i]n effect, the reservoir is a fishery" because of its common pool nature).

286. *See* Gary D. Libecap & Steven N. Wiggins, *The Influence of Private Contractual Failure on Regulation: The Case of Oil Field Unitization*, 93 J. POL. ECON. 690, 693 (1985) [hereinafter Libecap & Wiggins, *Oil Field Unitization*] (explaining that the rule of capture, when applied in the context of crude oil production, results in competitive behavior among firms that leads to "excessive wells" and "rapid extraction rates"); *see also* 1 ROBERT L. BRADLEY, JR., OIL, GAS AND GOVERNMENT: THE U.S. EXPERIENCE 115 (1996) (noting that the "rule of capture" when applied to underground oil and gas deposits "was destructive to producers since it bred resource inefficiency and encouraged overdrilling, overproduction, and price instability").

287. *See* Gary D. Libecap & Steven N. Wiggins, *Contractual Responses to the Common Pool: Prorationing of Crude Oil Production*, 74 AM. ECON. REV. 87, 88 (1984) [hereinafter Libecap & Wiggins, *Contractual Responses*] (explaining the processes followed when an oil producer captures oil from a reservoir).

288. *See id.* ("As a firm drills additional wells, oil migrates more rapidly into the created low pressure zone, raising the firm's share of field output.").

289. *See id.* (describing the benefits of being the first producer to extract from a reservoir); *see also* Libecap & Wiggins, *Oil Field Unitization*, *supra* note 286, at 693 (noting the higher marginal costs associated with extracting leftover oil).

290. 1 BRADLEY, *supra* note 286, at 115. This reduction is caused by a reduction in

extract oil from a single underground reservoir will prematurely exhaust the resource. "Drill and drain" is the oil deposit analog to the "race to fish." Just as in the fishery context, allowing the oil pool to remain an open-access commons leads to "ruin."[291]

As with other common pool resources, the problem of premature resource exhaustion can be mitigated by sole ownership. A single owner has substantial incentive to maximize the value of the owned resource. In the case of oil, slower and more controlled extraction can reduce the amount of contamination or loss of the deposit and maximize the amount of recoverable oil.[292] Yet, as already noted, there is rarely a single owner of a given reservoir. Firms are left with the choice of developing cooperative resource development strategies or relying upon government regulation to ensure more efficient resource use.[293]

As the oil industry developed, so did the understanding of reservoir mechanics. Oil developers learned the benefit of more deliberate and coordinated development of underground deposits.[294] As the knowledge base improved, the industry began to adopt more efficient development strategies, including contractual arrangements for oil field management.[295] Where multiple firms held development rights in a single oil field, they would sometimes seek to negotiate a means to coordinate their development so as to

---

subsurface pressure and the consequent "trapping" of oil pockets within the reservoir. *See* Libecap & Wiggins, *Oil Field Unitization*, *supra* note 286, at 693–94 (describing problems associated with retrieving oil after a loss of pressure); Libecap & Wiggins, *Contractual Responses*, *supra* note 287, at 88 (explaining the natural effects of rapid oil extraction).

291. Hardin, *supra* note 30, at 1247.

292. *See* 1 BRADLEY, *supra* note 286, at 110 (explaining that overdrilling leads to capital waste and a loss of retrievable oil).

293. According to some accounts, the eventual push for unitization was driven by the desire to replicate the benefits of sole ownership of underground oil and gas deposits:

> The idea of unit operation or overall control of a pool was not . . . wholly new or offensive, for it had been the ambition of every oil man since the beginning of the industry to own an entire pool, so that he could drill and produce according to his own ideas of efficiency and good economics, not being bedeviled by neighbors who could, in the usual competitive situation, set a pace that he had to follow or else suffer the drainage of oil and gas under his lands to the wells of his neighbors, with no right to prevent the competitive operations or to recover damages caused by the drainage.

ROBERT HARDWICKE ET AL., ANTITRUST LAWS V. UNIT OPERATION OF OIL OR GAS POOLS 12 (rev. ed. 1961).

294. *See* 1 BRADLEY, *supra* note 286, at 111 (noting that the industry's "self-interest" required a "radical[]" change in "production philosophies," "substituting a common plan of reservoir development for autonomous capture-rule competition").

295. The various types of strategies employed, and their relative costs and benefits, are described in Libecap & Wiggins, *Contractual Responses*, *supra* note 287, at 87.

reduce the exploitation rate and maximize the aggregate value of the field.[296] From the beginning, however, there was concern that cooperative efforts among oil companies to maximize production from oil deposits could raise antitrust concerns.[297] "Short of concentrated ownership, what was needed to mitigate overdrilling and overproduction was reservoir operation *as if* reservoirs were singularly owned," observed Robert L. Bradley, Jr., in his encyclopedic *Oil, Gas & Government.*[298] As with fisheries, in the absence of a sole owner or effective government intervention, the tragedy of the commons could be avoided if the various resource users would cooperate in limiting and controlling their exploitation of the underlying resource. And, as with fisheries, such private efforts were discouraged by the specter of antitrust prosecution.[299] As Professor Gibbs noted in 1927, "There will be overcompetition and overproduction until nature's supply is prematurely exhausted unless there is relaxation of the Sherman law's mandate forcing unlimited competition applying to oil production."[300]

In the case of oil field development, both state and federal antitrust laws were to blame. By 1891, eighteen states had already adopted antitrust laws.[301] Among these were oil-rich states such as Texas, Kansas, and Oklahoma.[302] "The Texas antitrust laws originating in 1889 were antithetical to the very concept of unitization."[303] Prohibited activities included arrangements to combine capital or skill to limit or control the output of any product.[304] An agreement to limit production was a felony.[305] Although relatively few cases were filed in Texas, the legal regime nonetheless served to discourage oil developers from adopting some voluntary unitization and cooperative

296. In addition to increasing the volume of oil that could be extracted, such coordination also allowed for more profitable development rates and reduced capital costs. *See* Libecap & Wiggins, *Oil Field Unitization*, *supra* note 286, at 693 (discussing the efficiency, economic, and financial gains that accompanied fieldwide unitization).

297. *See* 1 BRADLEY, *supra* note 286, at 112 (noting that the American Bar Association's Committee on Conservation of Mineral Resources' concern with such agreements conflicts with antitrust law); *see generally* HARDWICKE ET AL., *supra* note 293.

298. 1 BRADLEY, *supra* note 286, at 121.

299. *See id.* (noting that both federal and state antitrust legislation chilled coordinated drilling projects).

300. Vernon Gibbs, *Oil Industry Must Have Moratorium*, OIL & GAS JOURNAL, Dec. 1, 1927, at 143, 210.

301. 1 BRADLEY, *supra* note 286, at 121.

302. *Id.*

303. JACQUELINE LANG WEAVER, UNITIZATION OF OIL AND GAS FIELDS IN TEXAS 303 (1986).

304. *See id.* at 79 (describing unlawful cooperative agreements by producers).

305. *See* 1 BRADLEY, *supra* note 286, at 122 (explaining the penalties for violating the Sherman Act).

development.[306] Other states responded to similar concerns by exempting unitization—which served to enhance the total volume of recoverable oil—or by adopting compulsory unitization rules.[307]

In 1949, the Texas legislature adopted a voluntary unitization law that provided limited antitrust relief to certain types of cooperative arrangements.[308] Yet, by offering only limited immunity to certain types of arrangements, the law had the unintended consequence of "increas[ing] the antitrust risks of entering into other types of voluntary agreements."[309] Despite the reforms, voluntary unitization remained a potential antitrust violation under Texas law until 1983, and even then prosecution was possible of agreements not approved by the Texas Railroad Commission.[310] Compulsory unitization laws were also an imperfect solution to the conflict between antitrust laws and efficient resource use. For instance, such laws restricted the ability of oil developers to tailor production arrangements to particular circumstances.[311] Unitization in accordance with compulsory regulations was often inferior to the voluntary arrangements it would displace.

Federal antitrust law was no less relevant. Adoption of the Sherman Act in 1890 "cast a legal shadow on cooperative action designed to curtail current oil production."[312] The Justice Department's decision to file suit against a set of oil field operators in Louisiana in 1947 lengthened the shadow considerably, even if the case focused on joint processing and refining activities and was

---

306. *See* WEAVER, *supra* note 303, at 303 ("Very few cases exist on this issue despite the great ferment on the subject in the 1930s and 1940s, when the emerging concept of unitization was alternately praised as a foremost conservation device and condemned as a monopolistic scheme of the major oil companies.").

307. *See id.* (explaining that many state exemption unitization agreements exempting oil producers from antitrust penalties are created because of the "public interest of increasing the ultimate recovery of oil and gas"); Gary D. Libecap & James L. Smith, *The Economic Evolution of Petroleum Property Rights in the United States*, 31 J. LEGAL. STUD. 5,589, 5,596 (2002) (noting that roughly half of the states adopted unitization assistance laws).

308. *See* WEAVER, *supra* note 303, at 97 (describing ancillary effects of the legislation on oil producers).

309. *Id.*

310. *See* 1 BRADLEY, *supra* note 286, at 125 (explaining that voluntary unitization agreements may still be prosecuted under Texas law despite the 1983 revisions); WEAVER, *supra* note 303, at 131, 303–04 (noting that unitization agreements prior to 1983 were essentially per se violations of state antitrust laws and that post-1983 agreements must still be approved by the Texas Railroad Commission in order to enjoy antitrust immunity).

311. *See generally* Gary D. Libecap & James L. Smith, *Regulatory Remedies to the Common Pool: The Limits to Oil Field Unitization*, 22 Energy J. 1 (2001) (discussing the inefficiencies that accompany compulsory unitization laws while demonstrating that any attempt to unitize oil fields may lead to undesirable outcomes).

312. 1 BRADLEY, *supra* note 286, at 122.

eventually dismissed.[313] Oil developers' concerns were heightened still further one year later when Yale law professor Eugene V. Rostow argued that a federal compulsory unitization law was necessary because, among other reasons, state alternatives facilitated price-fixing.[314] In a case decided much later—perhaps the only case in which unitization efforts were successfully prosecuted for antitrust violations—the United States Court of Appeals for the Fifth Circuit made explicit that state regulation of oil and gas development would not exempt regulated activities from antitrust liability under federal law.[315]

Some analysts have suggested that oil developer fears of antitrust prosecution were overblown.[316] There were few actual prosecutions, and substantial reasons to believe that, at least in some cases, cooperative efforts to limit the rate of extraction could be defended successfully. Even assuming that such assessments were accurate, antitrust laws nonetheless discouraged welfare-enhancing arrangements for oil pools. That there was some uncertainty as to whether cooperative efforts would be prosecuted did not eliminate the

---

313. *See* United States v. Cotton Valley Operators Comm., 77 F. Supp. 409, 409 (W.D. La. 1948) (prosecuting an oil field unitization and pressure maintenance agreement under the Sherman Anti-Trust Act); *see also* HARDWICKE ET AL., *supra* note 293, at 134–37, 211–28, 329–30 (providing a detailed account of the circumstances surrounding the *Cotton Valley* case); WEAVER, *supra* note 303, at 79, 304–05 (discussing a heightened concern for antitrust liability for those producers with cooperative agreements as a result of *Cotton Valley*).

314. *See* WEAVER, *supra* note 303, at 79 (noting that Rostow's publication caused states to alter their respective laws in order to "encourage unitization and avoid federal intervention"); EUGENE V. ROSTOW, A NATIONAL POLICY FOR THE OIL INDUSTRY 34–42 (1948) (describing ways in which parties behaved in the absence of unitization as conflicting with conservation objectives).

315. *See* Woods Exploration & Producing Co. v. Aluminum Co. of Am., 438 F.2d 1286, 1295 (5th Cir. 1971) (refusing to permit state-prescribed procedures to circumvent the policy objectives of the Sherman Act), *overruled on other grounds by* Affiliated Capital Corp. v. City of Houston, 793 F.2d 706 (5th Cir. 1986). Some twenty-five years earlier, however, the federal government had entered into a consent decree with several oil companies to settle several antitrust claims that barred agreements among competitors to limit crude production for the purpose of controlling oil prices, but exempted agreements designed to ensure the maximum efficient extraction of oil from underground pools. *See* Charles B. Renfrew, *Intercompetitor Cooperation in the Petroleum Industry*, 61 ANTITRUST L.J. 559, 567 (1993) (discussing the case in which this consent decree was approved).

316. *See, e.g.*, HARDWICKE ET AL., *supra* note 293, at 175 ("[A]ntitrust laws do not condemn the making and the carrying out of agreements for the unit operation of oil or gas pools which are reasonably necessary to prevent waste and protect correlative rights."). Hardwicke argued that should a conflict arise between waste-minimizing unitization and antitrust principles, courts would likely interpret the antitrust laws so as to make them "inapplicable" to such arrangements. *Id.* In Texas, however, the law clearly establishes the opposite presumption: Insofar as unitization rules and antitrust conflict, antitrust principles trump. *See* WEAVER, *supra* note 303, at 303 (explaining that if a court finds a conflict between Texas unitization and antitrust legislation, it should invalidate the unitization provision).

disincentive.[317] As in the fishery context, the very possibility of prosecution chilled cooperative behavior that would have otherwise occurred.[318]

Professor Libecap and others suggest that there were substantial obstacles to the adoption of voluntary unitization schemes, such as the knowledge and transaction costs required for such arrangements.[319] These obstacles, Libecap's analyses suggest, were the primary barrier to more widespread implementation of cooperative developments.[320] The point of this discussion is not to contest Libecap's claim. Rather it is to suggest that, on the margin, there were fewer unitization agreements and other private contractual efforts to enhance the efficiency of oil extraction by slowing the rate of development than there would have been without the specter of antitrust prosecution. The precise extent to which such laws discouraged unitization arrangements is unclear, but there are reasons to suspect that the effect may have been substantial. Between 1949 and 1978, after the adoption of Texas' initial voluntary unitization law, oil developers entered into over 1,000 unitization agreements in Texas.[321] This figure demonstrates that where there are substantial potential gains from cooperative action, individual property owners are often capable of entering into cooperative agreements for mutual advantage, even where such agreements are costly to maintain and may yield uncertain benefits.[322]

The available evidence suggests that absent the risk of antitrust prosecution, "there would have been many more cooperative agreements and greater scientific interest in the new theories of reservoir development."[323]

---

317. *See* 1 BRADLEY, *supra* note 286, at 123 (noting the deterrent effect that the potential for prosecution had on oil companies). In at least one instance, industry executives sought assurances from state officials that cooperative oil development would not be prosecuted. They were denied. *See id.* at 124 (citing experience of Humble Oil & Refining Co.).

318. It is also possible that active antitrust prosecutions of oil industry activities in other areas generally increased the industry's sensitivity to antitrust concerns.

319. *See generally* Libecap, *supra* note 285 (exploring the political contracting involved in attempts to change private property rights into natural resources); Libecap & Smith, *supra* note 311 (discussing obstacles that prevent pareto-optimal outcomes in the context of oil field development); Libecap & Wiggins, *Contractual Responses*, *supra* note 287 (analyzing disparities in bargaining positions that hinder private efforts to unitize); Libecap & Wiggins, *Oil Field Unitization*, *supra* note 286 (describing reasons why private negotiations to unitize fail).

320. *See* Libecap, *supra* note 285, at 147 (explaining that high transaction costs, such as the resolution of information asymmetries among invested parties, deter coordinated behavior that would likely occur in a transaction cost-free environment).

321. *See* 1 BRADLEY, *supra* note 286, at 208 (demonstrating the presence of voluntary unitization "despite incentives for small-tract drilling that remained until the 1960s").

322. *See, e.g.*, WEAVER, *supra* note 303, at 248 (noting means to reduce holdout problems that could scuttle otherwise profitable voluntary agreements).

323. 1 BRADLEY, *supra* note 286, at 130. Bradley is quick to note, however, that the absence of such legal obstacles would not have produced perfectly efficient resource

Bradley suggests that the push for mandatory unitization of oil fields was the result, at least in part, of antitrust obstacles to cooperative resource development.[324] Insofar as antitrust laws discouraged voluntary unitization and other cooperative strategies, regulatory measures, such as compulsory unitization laws, became more necessary. Yet, as noted above, compulsory unitization imposed a uniform approach when site-specific arrangements would have been more beneficial.[325] It should also be noted that moving from a private, contractual to a political, compulsory approach to oil reservoir management does not eliminate the associated transaction costs. The primary cost associated with unitization agreements, knowledge about the underground reservoir, remains.[326]

B. Pollution Control

Pollution problems are often viewed as distinct from commons problems, but this need not be the case. Local airsheds and watersheds may be conceived of as environmental commons just like the fishery or common pasture.[327] As with the pasture, the airshed is used—or the purity of the air therein is "consumed"—by the emission of pollution by factories. As Hardin noted, in the pollution context, "it is not a question of taking something out, but of putting something in."[328] The physical flow of material may be different, but the incentives each individual user faces are the same. Each user gets the full benefit of disposing his wastes into the common resource while the cost of such disposal on the underlying resource is dispersed among all of the users.[329]

---

development due to transaction costs and the potential for entrepreneurial error. *Id.*; *see also id.* at 210 (noting the information costs associated with unitization agreements).

324. *See id.* at 205 (explaining the efficiency gains associated with mandatory unitization).

325. *See supra* note 295–96, 311 and accompanying text (describing the inefficiencies created by compulsory unitization).

326. *See* 1 BRADLEY, *supra* note 286, at 210 (noting that voluntary unitization fails to eliminate the problem of "perfect knowledge about the reservoir and relative shares of the surface owners above it").

327. *See* Hardin, *supra* note 30, at 1244–45 (offering examples of various environmental commons, including pastures, oceans, and national parks).

328. *Id.* at 1245.

329. As Hardin explained:

> The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying the wastes before releasing them. Since this is true for everyone, we are locked into a system of 'fouling our own nest,' so long as we behave only as independent, rational, free-enterprisers.

Id.

To see how the antitrust concern might arise, consider a somewhat stylized example of several industrial facilities within the same industry—perhaps several timber mills—located in a single river basin.[330] All of the facilities are relatively similar—producing the same end products and discharging similar effluents into the river. Water quality in the river basin is primarily a function of the aggregate discharge into the river over a given period of time, rather than the discharge of any specific firm. If the water quality in the river does not meet applicable standards, a binding constraint on aggregate discharge, such as a "Total Maximum Daily Load" (TMDL) under the federal Clean Water Act, may be imposed.[331] Failure to meet the regulatory limit could result in the imposition of more draconian discharge standards on each individual facility—standards that each facility may wish to discharge.

Faced with the prospect of more stringent discharge standards or other sanctions, the firms in question might opt to create an association or other collective enterprise to ensure that aggregate discharge falls below the relevant limit.[332] Assuming the unavailability of other means of meeting the aggregate discharge constraint, such as the purchase of emission credits or funding of nonpoint source controls, the firms could agree to reduce their output so as to ensure that their discharges, in aggregate, remain below the relevant limit.[333]

---

330. This hypothetical is loosely based on that suggested by Professor Yandle with regard to Wisconsin's Fox River. *See* Yandle, supra note 121, at 49–50 (explaining that a binding restraint on output among paper producers on the river results in an improvement in water quality).

331. *See* 33 U.S.C. § 1313(d)(1)(c) (2000) (requiring states to establish limits on the amount of pollutants that may be discharged into certain bodies of water within their respective boundaries).

332. *See* David W. Riggs & Bruce Yandle, *Environmental Quality, Biological Envelopes, and River Basin Markets*, *in* WATER MARKETING—THE NEXT GENERATION 147, 154–62 (Terry L. Anderson & Peter J. Hill eds., 1997) (discussing the development of the Tar-Pamlico Association). It is important to stress that the incentive for the creation of the collective association in this example comes from the imposition of a binding restraint on aggregate water pollution. As occurred in the Tar-Pamlico example, firms are not motivated by environmental concern, as such, but by a desire to reduce the regulatory burden. Absent some sort of binding constraint, whether imposed by federal regulation or some other means, there would be no incentive to create a collective entity for the purpose of reducing aggregate pollution levels in the watershed.

333. In theory, the firms would agree to a limit on their discharges, as such, and then restrict output to meet the limit. Given the cost and difficulty of measuring discharges on a continuous basis, it is possible that the firms' agreement would focus on a more readily measurable proxy, such as industrial output, to ensure compliance with the agreement. Such proxies for actual emissions are sometimes used by regulatory agencies to monitor compliance. The EPA, for example, has sought to use heat input as the basis for emission projections. *See* Appalachian Power Co. v. EPA, 249 F.3d 1032, 1051 (D.C. Cir. 2001) (upholding the EPA's use of heat input as a proxy of projecting emission levels).

Yet, this is just the sort of agreement—an agreement to limit output with the potential to reduce consumer welfare by increasing prices—that would be suspect under antitrust principles. As Kneese and Bower observed:

> [T]he internalization of externalities into a private decision-making unit for an entire basin would most probably result in changes in market structure (monopolization) contrary to social policy and inconsistent with efficient production because of its market power.[334]

Hence, the conflict between environmental concerns and antitrust principles again moves to the fore. For environmental purposes, it may be desirable to have a single entity—such as a single firm or association—that is responsible for output decisions for an entire river basin.[335] Yet, the creation of such an association, absent express government authorization, would also raise antitrust concerns.[336] As in the conservation context, environmental concerns could encourage the same sort of output limitations antitrust condemns.[337]

VI. Reconciling Competition Concerns with Conservation

Antitrust law has evolved substantially since the prosecutions of the GCSOA and Monterey Sardine.[338] There is a growing recognition that many

---

334. ALLEN V. KNEESE & BLAIR T. BOWER, MANAGING WATER QUALITY: ECONOMICS, TECHNOLOGY, INSTITUTIONS 90 (1968).

335. *See* Riggs & Yandle, *supra* note 332, at 149 (explaining the significant role that river basins play in achieving better water quality). Some analysts argue that the failure to adopt regional, river basin or watershed-based institutions for pollution control was "the most profound deficiency" of the initial federal statutes. ALLEN V. KNEESE & CHARLES T. SCHULZE, POLLUTION, PRICES, AND PUBLIC POLICY 45 (1975).

336. *See* Riggs & Yandle, *supra* note 332, at 150–51 (noting the monopoly problem that accompanies one firm's domination of market share). The antitrust considerations arise where the facilities in question are in a common industry so that a decision to limit output would reduce the output of a given product. Where the facilities in question are all parts of different industries, there would be less concern that a river basin association could act as a regional monopoly.

337. Some observers have noted that the move toward voluntary industry environmental standards could generate conflict between antitrust laws and environmental goals. *See, e.g.*, Jane C. Luxton et al., Voluntary *Environmental Undertakings: An Antitrust Alert*, 17 DAILY ENVTL. REP. (BNA) B-1, at B-4–B-5 (Sept. 4, 2002) (listing four instances where environmental law and antitrust law likely conflict). While the application of antitrust law as described above may, at times, frustrate the pursuit of some environmental goals, such problems are analytically distinct from the focus of this article. Concerns about joint ventures, cooperative research, and the like do not involve the same inherent tension as does the conflict between private cooperative solutions to commons problems and antitrust law.

338. *See* Herbert Hovenkamp, *The Rationalization of Antitrust*, 116 HARV. L. REV. 917, 927 (2003) (reviewing POSNER, *supra* note 103) (noting the centrist positions that courts have

arrangements that appear anticompetitive have the potential to enhance consumer welfare. Where courts once rigidly applied per se rules to condemn a wide range of cooperative conduct among firms, they are now willing to take a closer look at the potential economic benefits of cooperative behavior.[339] The apparent dichotomy between the per se rule and the rule of reason has become "less fixed" as courts have moved away from bright line approaches to antitrust analysis.[340] Indeed, some commentators go so far as to suggest that the per se rule is dead and "there is only one form of analysis, the rule of reason."[341] Whether or not this view accurately characterizes the state of antitrust analysis, it is clear that many arrangements once condemned as anticompetitive are now recognized as permissible economic arrangements.

This increased appreciation of the potential for otherwise anticompetitive arrangements to serve broader societal goals suggests that courts should reconsider the per se condemnation of cooperative fishery management. While such conduct may appear anticompetitive, and may even reduce output in some cases, it also has the potential to serve conservation goals, and thereby enhance total welfare. For this reason, cooperative efforts to limit or otherwise control fish catch should be analyzed under the rule of reason.[342] Such a shift in

---

taken to antitrust law over the past two decades); *see also* James B. Kobak, Jr., *Running the Gauntlet: Antitrust and Intellectual Property Pitfalls on the Two Sides of the Atlantic*, 64 ANTITRUST L.J. 341, 345 (1996) (noting that U.S. antitrust law has become "more flexible and, in general, more permissive"); William E. Kovacic, *Reagan's Judicial Appointees and Antitrust in the 1990s*, 60 FORDHAM L. REV. 49, 98 (1991) (noting a general trend toward "more permissive" liability standards in much of antitrust law).

339. *See* Kovacic, *supra* note 338, at 98 (listing specific issues within antitrust law where the court has relaxed its rules against firms).

340. *See* Cal. Dental Ass'n v. FTC, 526 U.S. 756, 779 (1999) ("The truth is that our categories of analysis of anticompetitive effects are less fixed than terms like 'per se,' 'quick look,' and rule of reason tend to make them appear."). The Federal Trade Commission first moved away from a "bright line" approach in *In re* Massachusetts Board of Registration in Optometry, 110 F.T.C. 549, 603–04 (1988) (describing the general trend in cases away from the traditional "tidy rules" of antitrust jurisprudence). *See also* Timothy J. Muris, *The New Rule of Reason*, 57 ANTITRUST L.J. 859, 859 (1988) [hereinafter Muris, *Rule of Reason*] (discussing that antitrust law requires only one type of analysis).

341. Muris, *Rule of Reason*, *supra* note 340, at 859. *See also* Timothy J. Muris, *California Dental Association v. Federal Trade Commission: The Revenge of Footnote 17*, 8 SUP. CT. ECON. REV. 265, 304–06 (2000) [hereinafter Muris, *California Dental*] (arguing that the "supposed dichotomy" between the per se rule and the rule of reason has been replaced with a "the rule of reason as a continuum").

342. While this Article focuses on fisheries, this analysis applies equally in other common pool resource contexts, suggesting that the rule of reason should be applied whenever there are private arrangements that serve to reduce consumption of a common-pool resource that would be otherwise subject to depletion.

approach is largely consistent with contemporary antitrust doctrine and would enhance the prospects for sustainable fishery management.

To date, courts have not been asked to address this question directly. There are no cases evaluating efforts to solve coordination problems in the context of an open-access commons; indeed there are no reported antitrust cases even addressing conservation concerns in the fishery context over the last thirty years.[343] The cases condemning voluntary efforts to reduce or control fish catch have yet to be called into question, let alone overturned. As the law stands, efforts to conserve marine fisheries through private, cooperative efforts risk prosecution under the Sherman Act. Federal antitrust authorities could help facilitate the acceptance of collaborative conservation efforts, but they cannot immunize such arrangements from antitrust scrutiny.[344] Should the courts fail to apply the rule of reason to conservation-enhancing agreements among resource users, however, statutory reforms could be considered. Yet, a statutory "fix" has the potential of imposing a "one-size-fits-all" rule in an area where context-specific judgments may be more appropriate.

A. Conservation and the Rule of Reason

Under the rule of reason, courts recognize that otherwise anticompetitive arrangements can have offsetting efficiency benefits. Courts seek to balance the tendency of any given arrangement to produce both anticompetitive and efficiency enhancing effects so as to maximize aggregate social welfare.[345] This balancing of anticompetitive effects with efficiency gains from various arrangements is now common in many parts of antitrust law, including arrangements that primarily serve to control opportunistic behavior. Transactional efficiencies often result when arrangements constrain the potential for opportunistic behavior.[346] Yet, such arrangements can also prove

---

343. The closest are a handful of cases addressing the impact of fishery consolidation under ITQ management. *See* Ace Lobster Co. v. Evans, 165 F. Supp. 2d 148, 170–84 (D.R.I. 2001) (evaluating lobster trap cap regulations); J.H. Miles & Co. v. Brown, 910 F. Supp. 1138, 1154–60 (E.D. Va. 1995) (examining commercial catch quotas); Sea Watch Int'l v. Mosbacher, 762 F. Supp. 370, 375–80 (D.D.C. 1991) (examining an individual transferable quota system for particular fisheries).

344. *See, e.g.*, Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 13 ("A consent judgment, even one entered at the behest of the Antitrust Division, does not immunize the defendant from liability for actions, including those contemplated by the decree, that violate the rights of nonparties.").

345. *See supra* notes 102–05 and accompanying text (noting the prominent role that the rule of reason has assumed in antitrust law).

346. *See* Wesley J. Liebeler, *1984 Economic Review of Antitrust Developments:*

anticompetitive. Balancing these two potential effects is the role of the rule of reason.

Economic cooperation among potential competitors is often necessary, as "some activities can only be carried out jointly."[347] Therefore, firms must sometimes act in concert with potential competitors or other firms that at least have the potential to be competitors in the future. For this cooperation to occur, the firms need some assurance that members will honor their arrangement. This assurance creates the need for ancillary restraints to prevent one party to the arrangement from opportunistically taking advantage of the others. The difficulty is differentiating those arrangements that serve to protect legitimate business arrangements from opportunistic behavior and efforts to generate monopoly rents.[348] The former such arrangements should be evaluated under the rule of reason, while the latter may be held illegal under the per se rule.

At a basic level, all commercial agreements "restrain" trade, in that they regulate commercial conduct or otherwise bind the parties to engage in or refrain from particular activities. The key analytical difficulty is to identify which agreements restrain trade in violation of the antitrust laws and which are merely ancillary to other legitimate purposes. This identification is the purpose of the ancillary restraints doctrine first articulated by then-Judge William Howard Taft in *United States v. Addyston Pipe & Steel Co.*[349] To avoid antitrust condemnation, the restraint

> [M]ust be one in which there is a main purpose, to which the covenant in restraint of trade is merely ancillary. The covenant is inserted only to protect one of the parties from the injury which, in the execution of the

---

Horizontal Restrictions, Efficiency, and the Per Se Rule, 33 UCLA L. REV. 1019, 1021–22 (1986) [hereinafter Liebeler, *1984 Economic Review*] (discussing instances where the court considered the efficiencies created by an arrangement when evaluating it under a per se rule).

347. BORK, *supra* note 102, at 278. Of course, observers will not always be aware of the need for or benefits of such arrangements. Yet, this lack of awareness will not prevent claims of anticompetitive conduct. As Ronald Coase noted, "[I]f an economist finds something—a business practice of one sort or another—that he does not understand, he looks for a monopoly explanation." R.H. COASE, *Industrial Organization: A Proposal for Research*, in POLICY ISSUES AND RESEARCH OPPORTUNITIES IN INDUSTRIAL ORGANIZATION 59, 67 (Victor Fuchs ed., 1972).

348. *See* Liebeler, *1984 Economic Review*, *supra* note 346, at 1024 ("Since opportunistic behavior takes many forms, so will cost effective protections against it. These precautions sometimes take forms that appear to violate the antitrust laws. It is important not to confuse arrangements designed to reduce opportunism with those designed to restrict output.").

349. United States v. Addyston Pipe & Steel Co., 85 F. 271 (6th Cir. 1898). Robert H. Bork refers to Judge Taft's *Addyston Pipe* opinion as "one of the greatest, if not the greatest, antitrust opinions in the history of the law." BORK, *supra* note 102, at 26.

> contract or enjoyment of its fruits, he may suffer from the unrestrained competition of the other.[350]

In addition, the restraint must not exceed "the necessity presented by the main purpose of the contract."[351] In other words, the arrangement in question must be necessary to facilitate a legitimate business enterprise by limiting the potential for opportunistic conduct, the threat of which would frustrate the underlying business purpose.[352]

Examples of such ancillary restraints include an agreement by the seller of a business not to compete against the business being sold, a noncompete contract between an employer and her former employee, or an agreement between business partners not to compete against the partnership.[353] In a literal sense, each of these agreements restrains trade, as each prevents individuals or firms from engaging in potentially productive economic activity and exchange.[354] At the same time, any of these agreements can represent a

---

350. *Addyston Pipe*, 85 F. at 282. When Judge Taft wrote "unrestrained competition," he could just as easily have written "opportunistic behavior." Liebeler, *1984 Economic Review*, *supra* note 346, at 1027.

351. *Addyston Pipe*, 85 F. at 282.

352. That an agreement seeks to control opportunistic conduct is not enough by itself, as all cartel arrangements are, at heart, an effort to control opportunistic conduct insofar as they are designed to prevent members of the cartel from shirking or otherwise seeking to take advantage of other cartel members by violating the cartel's terms. As Professor Liebeler summarizes:

> Restraints that facilitate a contract's main purpose and that are not broader than reasonably necessary are to be judged on the same basis as the contract itself. If the contract is legal, so is the ancillary restraint, no matter what form either the contract or its ancillary restraint might take.

Liebeler, *1984 Economic Review*, *supra* note 346, at 1029. Or, in the words of then-Judge Robert Bork:

> To be ancillary, and hence exempt from the per se rule, an agreement eliminating competition must be subordinate and collateral to a separate, legitimate transaction. The ancillary restraint is subordinate and collateral in the sense that it serves to make the main transaction more effective in accomplishing its purpose.

Rothery Storage & Van Co. v. Atlas Van Lines, Inc., 792 F.2d 210, 224 (D.C. Cir. 1986).

353. The other examples identified by Judge Taft are an agreement among business partners not to compete against one another upon termination of the partnership and an agreement by the buyer of property not to use the property in competition with the seller. *See Addyston Pipe*, 85 F. at 281 (listing these examples).

354. *See* Polk Bros. v. Forest City Enters., Inc., 776 F.2d 185, 189 (7th Cir. 1985). As the court states:

> The evaluation of ancillary restraints under the Rule of Reason does not imply that ancillary agreements are not real horizontal restraints. A covenant not to compete following employment does not operate any differently from a horizontal market division among competitors—not at the time the covenant has its bite, anyway. The difference comes at the time people enter beneficial arrangements.

legitimate effort to control opportunistic behavior by firms that seek to collaborate to achieve a common objective other than the restraint of trade. A seller of property who is unable to secure a commitment from potential buyers not to use the property in competition with the seller may opt not to sell the property at all. If prospective partners in a joint venture are unable to commit not to compete with one another in the area of the partnership, then they may never collaborate. Where such collaborative endeavors are beneficial, an antitrust rule that imposes a blanket prohibition on such arrangements will not maximize general welfare.[355]

Resource depletion in an open-access commons presents a fairly traditional free-rider problem in which opportunistic behavior holds the potential to harm all of the resource users, yet no single user has any incentive to refrain from opportunistic behavior because she has no guarantee that other users will do the same. Quite the opposite, each user of an open-access commons has good reasons to suspect that other users will act opportunistically. When each user responds to these incentives, all maximize their use of the underlying resource, leading to over-consumption and excessive resource depletion.[356] In the case of fisheries, the end result is often fishery collapse.

This sort of free-rider problem is nothing new in antitrust law. For example, "many intrabrand agreements on price or price levels can create efficiency by alleviating free rider problems."[357] Consider the producer of name-brand appliance products that only sells through independent retailers.[358] There is substantial value in the brand name of the product that the producer may wish to protect by ensuring that customers receive a minimum level of customer service, post-purchase care, and the like. Yet, each independent retailer has an incentive to shirk on the provision of such services and undercut the price of his competitors in the market. When a retailer engages in such

---

Id.

355. As Judge Easterbrook noted in *Polk Brothers*, "A legal rule that enforces covenants not to compete, even after an employee has launched his own firm, makes it easier for people to cooperate productively in the first place." *Id.* The relevant issue for a court is whether such an agreement "promoted enterprise and productivity at the time it was adopted." *Id.*

356. *See supra* notes 24–35 and accompanying text (discussing problems that arise with unregulated use of a common resource).

357. Wesley J. Liebeler, *Resale Price Maintenance and Consumer Welfare:* Business Electronics Corp. v. Sharp Electronics Corp., 36 UCLA L. REV. 889, 898 (1989) [hereinafter Liebeler, *Resale Price Maintenance*].

358. This scenario is loosely modeled on *Continental T.V., Inc. v. GTE Sylvania*, 433 U.S. 36 (1977), in which the Supreme Court applied the rule of reason to evaluate intrabrand distribution restraints imposed by a television manufacturer on retail franchisees. *See also* Liebeler, *Resale Price Maintenance*, *supra* note 357, at 897–903 (describing the potential for cartel behavior to occur in this type of situation).

behavior, she captures the full economic benefit of her behavior. Insofar as her actions reduce, or "deplete," the value of the brand name in the relevant market, the costs are spread across all of the retailers for the product, as well as the producer. As with the user of the open-access commons, the retailer has the incentive to engage in opportunistic behavior because the benefits are concentrated, yet the costs are dispersed.

To address this concern, a name-brand producer may limit the number of independent retailers that may sell the product, and it may also impose a variety of conditions on the sale of the product, ranging from product displays, sale promotions, customer service guarantees, post-purchase care, and so on. To further limit shirking, the name-brand producer may further grant exclusive sales regions and set minimum prices so as to prevent intrabrand retail price competition that could encourage shirking. These restrictions, which at one level may seem anticompetitive, can all be seen as efforts to prevent depletion of the value of the brand name through opportunistic behavior by individual producers, much as restrictions adopted by fishing unions can be designed to limit opportunistic behavior that depletes the open-access fishery.

Within Judge Taft's framework for ancillary restraints, the restrictions imposed by fishing unions and fisher associations can be recognized as agreements among partners not to compete against the partnership.[359]

> [W]hen two men became partners in a business, although their union might reduce competition, this effect was only an incident to the main purpose of a union of their capital, enterprise, and energy to carry on a successful business, and one useful to the community. Restrictions in the articles of partnership upon the business activity of the members, with a view of securing their entire effort in the common enterprise, were, of course, only ancillary to the main end of the union, and were to be encouraged.[360]

The problem of opportunistic behavior can arise when partners are required to invest in the partnership to prevent some partners from free-riding on the investments made by the others.[361]

In the fishery context, the partnership benefits from all participants reducing their catch so as to ensure that the aggregate catch does not exceed the maximum sustainable yield of the fishery. This forbearance on the part of each partner represents an investment in the long-run health of the fishery, and

---

359. *See* United States v. Addyston Pipe & Steel Co., 85 F. 271, 280 (6th Cir. 1898) (noting that certain agreements that restrain trade are economically desirable).

360. *Id.*

361. *See* Liebeler, *1984 Economic Review*, *supra* note 346, at 1028 ("It is desirable that all the partners develop goodwill specific to the partnership, but there is also a danger tha[t] some of the partners will try to divert that goodwill to their own benefit.").

therefore an investment in the well-being of the partnership.[362] Short-term efficiency is sacrificed in return for long-term efficiency. Yet, as in any open-access commons, each participant has an incentive to free-ride on the conservation efforts of the other participants and increase his own individual catch. Should each participant act in this fashion—in effect, competing against the partnership—the fishery is depleted. Thus, it becomes necessary for the partnership to adopt binding restraints on the amount of fish each participant may catch.

Were it simply enough for fishery associations to set catch limits, it might be easy to condemn the other restraints adopted by Monterey Sardine, GCSOA, and the other fishers associations as anticompetitive.[363] Yet, it is not enough to adopt the simple horizontal restraint to protect the partnership. Because of the incentive to cheat, the restraint must be enforced. Participants in a given fishery may agree to catch limits, but there is no assurance that they will abide by the limitations. As with any cartel, there is tremendous incentive to cheat. Indeed, the more successful the partnership is at controlling the catch, the greater incentive there is to cheat.[364] In a marine fishery, cheating is difficult to control. The activities and catches of individual boats are difficult to monitor.[365] It is easier to police landings or sales to canneries, particularly as there will typically be fewer canneries than fishers. Thus, the fishing association enters into contracts with the canneries to monitor or control the volume of fish caught. Minimum prices can help maintain fisher income—potentially reducing the incentive to cheat. They will also reduce the quantity of fish that canneries will purchase. Thus, the vertical aspects of the arrangement—the contracts between the fishermen and the canneries—serve to help control shirking and free-riding by individual fishers.

Another threat to the viability of such a partnership in a marine fishery is the entrance of outsiders. So long as there is open access to the fishery, conservation efforts remain a questionable investment. A fishing association cannot limit the catch if nonmember fishers are free to catch fish from the same

---

362. *See* Townsend, *supra* note 53, at 43 (noting that the decision to defer or reduce harvest is an investment by fishers in the fishery).

363. *See supra* Parts IV.A–B and accompanying text (describing agreements within the fishery context that were held to be in violation of the Sherman Act).

364. On the incentives created by cartels, see generally ALEXIS JACQUEMIN & MARGARET SLADE, *Cartels, Collusion, and Horizontal Merger, in* 1 HANDBOOK OF INDUSTRIAL ORGANIZATIONS 415, 425–30 (RICHARD Schmalensee & Robert D. Willig eds., 1989).

365. *See* Christopher J. Carr & Harry N. Scheiber, *Dealing with a Resource Crisis: Regulatory Regimes for Managing the World's Marine Fisheries*, 21 STAN. ENVTL. L.J. 45, 58–62 (2002) (detailing the difficulty of enforcing catch levels on the high seas).

fishery.[366] The fishers' partnership addresses this concern by making contracts with canneries exclusive, so that nonmember fishers cannot sell their fish in competition with the partnership. Such contracts protect the partnership by protecting the partnership's investment in the conservation of the fishery. Unlike those restraints above, however, such agreements cannot be described as efforts by the partnership solely intended to prevent *partners* from competing against the partnership, as the excluded fishers are, by definition, not partners in the fishery. This conclusion does not mean that the restrictions cannot be viewed as ancillary to the underlying purpose of conserving the fishery. If such conservation measures ensure a long-run supply of fish, they may be welfare-enhancing, the harm to individually excluded fishers notwithstanding.[367] As noted above, the short-term efficiency losses caused by the exclusion may be outweighed by the long-term efficiency gains from conserving the underlying resource and maximizing resource output over time. Protecting an individual fishery from depletion may be pro-competitive insofar as it maintains the fishery as a viable source of fish for consumers. This benefit does not mean that all such arrangements should necessarily be legal under federal antitrust laws.[368] It does, however, suggest that a court should evaluate such arrangements under the rule of reason, and weigh their potential anticompetitive effects against their potential to prevent a tragedy of the commons.

The Supreme Court has been willing to allow even the most potentially anticompetitive arrangements where there was evidence that such arrangements would be welfare enhancing, including horizontal price fixing. Historically, horizontal price fixing was the sort of activity most likely to be condemned as per se illegal under the Sherman Act because price fixing so often reduces output. Nonetheless, "horizontal price fixing as well as other types of horizontal restraints are illegal per se only if they generally restrict output rather than create efficiency."[369] In *Broadcast Music Inc. v. Columbia Broadcasting System*,[370] the Court even seemed to accept that formal arrangements to set

366. Indeed, insofar as a fishing association is successful at limiting the fishing effort of its own members, it is likely to increase the incentive for nonmember fishers to enter the fishery.

367. It must be remembered that for conduct to be anticompetitive, "it must harm the competitive *process* and thereby harm consumers . . . [h]arm to one or more *competitors* will not suffice." United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001) (per curiam).

368. *See, e.g.*, NCAA v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 98–120 (1984) (striking down as a violation of the Sherman Act an NCAA plan to reduce the competition between televising football games and attendance at football games).

369. Liebeler, *Resale Price Maintenance*, *supra* note 357, at 892.

370. Broad. Music Inc. v. Columbia Broad. Sys., 441 U.S. 1 (1979).

prices might nonetheless merit analysis under the rule of reason and survive judicial scrutiny, particularly when, as in the fishery context, the arrangement functions as a partnership in pursuit of a legitimate business end.[371]

Broadcast Music concerned the issuance of blanket licenses to copyrighted songs by the American Society of Composers, Authors, and Publishers (ASCAP) and Broadcast Music, Inc. (BMI).[372] Under these arrangements, ASCAP and BMI would license the right to perform any and all compositions within their respective catalogs for a set fee.[373] Blanket licenses had the effect of "fixing" the prices for which songs were sold. At the same time, blanket licenses facilitated the sale and enforcement of music rights, in large part by reducing the transaction costs of music sales in a marketplace with "thousands of users, thousands of copyright owners, and millions of compositions."[374]

The Court eschewed a formulaic approach to antitrust analysis and reasoned that "[n]ot all arrangements among actual or potential competitors that have an impact on price are per se violations of the Sherman Act or even unreasonable restraints."[375] Joint ventures, for example, are not illegal, even where the venture "fixes" a price for the product the common enterprise produces, "where the agreement on price is necessary to market the product at all."[376] While the ASCAP and BMI blanket licenses may have entailed "'price fixing' in the literal sense," the Court found that this practice did not belong in the "categories of business behavior to which the per se rule has been held applicable."[377] As partners, the organizations were "literally 'price fixing,'" when they set their respective prices, "but they are not per se in violation of the Sherman Act."[378] "Literalness is overly simplistic and often overbroad,"[379] the Court cautioned, as "easy labels do not always supply ready answers."[380]

---

371. *See id.* at 9 ("When two partners set the price of their goods or services they are literally 'price fixing,' but they are not per se in violation of the Sherman Act.").

372. *Id.* at 4.

373. The fees were typically either a percentage of the licensee's revenue or a flat dollar amount, but did "not directly depend on the amount or type of music used." *Id.* at 5.

374. *See id.* at 20 (describing how blanket licenses effected the market for copyrighted music).

375. *Id.* at 23.

376. *Id.*

377. *Id.* at 9.

378. *Id.*

379. *Id.*

380. *Id.* at 8.

The Court recognized that the blanket licenses, as used by ASCAP and BMI, were "not a 'naked restrain[t] of trade with no purpose except stifling of competition.'"[381] To the contrary, the licenses "accompanie[d] the integration of sales, monitoring, and enforcement against unauthorized copyright use."[382] Even if BMI and ASCAP's use of blanket licenses discouraged some sales, there was little doubt the net effect of the practice was to increase the sale of music performance rights.[383] By rejecting the application of the per se rule to ASCAP's and BMI's use of blanket licenses, the Court did not seek to immunize them from antitrust scrutiny. Rather, the Court explained, the practices "should be subjected to a more discriminating examination under the rule of reason"—an examination that may well condemn the arrangements.[384] The Court reiterated its prior holdings that some arrangements are "so 'plainly anticompetitive'"[385] and "so often 'lack . . . any redeeming virtue'"[386] that they may be presumed illegal with the most cursory examination.[387] It nonetheless made clear that a practice that fixed prices does not necessarily "lack . . . any redeeming virtue," and could, nonetheless, have a pro-competitive justification.[388]

The Court similarly demonstrated its willingness to consider the potential welfare benefits of horizontal restraints in a challenge to the National Collegiate Athletic Association (NCAA) policies governing college football telecasts.[389] The NCAA sought to fix the price for college football telecasts and limit the number of television exposures in a single season for any given team.[390] There was no question that this arrangement both fixed prices and reduced output.[391] "Because it restrains price and output, the NCAA's television plan has a

381. *Id.* at 20 (quoting White Motor Co. v. United States, 372 U.S. 253, 263 (1963)).

382. *Id.*

383. *See id.* at 20–21 (explaining that blanket licenses increase efficiencies in the copyrighted music market, thereby lowering costs and boosting sales).

384. *Id.* at 24.

385. *Id.* at 8 (quoting Nat'l Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679, 692 (1978)).

386. *Id.* (quoting N. Pac. Ry. Co. v. United States, 356 U.S. 1, 5 (1958)).

387. *See id.* at 24 (reviewing cases in which the Court found practices to be presumptively illegal without requiring application of the rule of reason).

388. *See id.* at 20–21 (explaining how blanket licenses can facilitate competition in the copyrighted music market).

389. NCAA v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85 (1984).

390. *See id.* at 91–94 (describing the NCAA's television plan).

391. *Id.* at 107 ("Price is higher and output lower than they would otherwise be, and both are unresponsive to consumer preference.").

significant potential for anticompetitive effects."[392] Despite this finding, the Court found "it would be inappropriate to apply a per se rule" to the NCAA's practices.[393]

While many of the NCAA's rules took the form of anticompetitive restrictions on member behavior, it was also clear that the NCAA performed a useful function in constraining the behavior of member institutions in pursuit of otherwise legitimate purposes.[394] For instance, the NCAA adopted numerous rules designed to maintain amateurism in college athletics and prevent athletic programs from eclipsing the educational missions of member institutions.[395] In a sense, one could view many of the NCAA's policies as efforts to define and protect "college football" as a marketable product distinct from professional football and other competitive sports.[396] In the process, the NCAA imposed rules on member institutions that no member could undertake unilaterally without damaging its competitiveness on the field.[397] For example, a school that limited practice time so as not to unduly interfere with athletes' studies would be at a disadvantage as against other schools that refused to do the same. By imposing common rules on all member institutions, the NCAA facilitated the success of the common enterprise. "In performing this role, its actions widen consumer choice—not only the choices available to sports fans but also those available to athletes—and hence can be viewed as procompetitive."[398] Thus, measures that appear anticompetitive or inefficient in the short-term can be efficient insofar as they maximize long-term output by ensuring the continued existence of a valuable resource—whether that is college sports, as in this case, or a marine fishery.

---

392. *Id.* at 104. The Court further noted:

> By participating in an association which prevents member institutions from competing against each other on the basis of price or kind of television rights that can be offered to broadcasters, the NCAA member institutions have created a horizontal restraint—an agreement among competitors on the way in which they will compete with one another.

Id. at 99.

393. *Id.* at 100.

394. *See id.* at 101–02 (explaining why the NCAA must restrict competition if it is to be able to market its product).

395. *See id.* at 102 (discussing how the NCAA has adopted rules to maintain the amateur character of collegiate sports).

396. *Id.* at 101–02 ("[W]hat is critical is that this case involves an industry in which horizontal restraints on competition are essential if the product is to be available at all.").

397. *See id.* at 102 (listing rules the NCAA implemented which individual universities could not risk unilaterally adopting).

398. *Id.*

Under the rule of reason, the Court recognized that the NCAA would be justified in adopting many restrictions on the conduct of its members.[399] Yet, the rule of reason does not give associations a blank check. Practices that serve to reduce output and increase prices—as the NCAA's policies on college football telecasts—must be reasonably necessary for the achievement of a legitimate business purpose. While horizontal restrictions governing the rules and conduct of the game are defensible on such grounds, limits on the output of game telecasts were not.[400] Key to the rule of reason analysis is distinguishing between those restrictions that are reasonably necessary for legitimate business purposes and those that are purely anticompetitive.

While the analyses in *BMI* and *NCAA* suggest that it would be appropriate to analyze cooperative approaches to fishery management under the rule of reason, the Supreme Court's antitrust jurisprudence is sufficiently muddled that there are cases that might suggest otherwise. In *Arizona v. Maricopa County Medical Society*,[401] the Court invalidated an arrangement as anticompetitive that arguably was an effort to control a common pool resource problem very similar to that at issue in the fishery context.[402] Specifically, the Court found that two physician associations committed antitrust violations by agreeing to maximum fees under association-administered insurance plans.[403]

The arrangement in *Maricopa County* was essentially an effort to control a common pool problem created by the insurance reimbursement plan. In this sense, it arguably was a partnership of the sort that should, at least in some instances, be permissible under *Addyston Pipe*.[404] The doctors adopted maximum fees to limit opportunism. The insurance plan was, in a sense, a common pool resource from which it would reimburse each participating doctor for services provided. Under such an arrangement, each doctor would have little incentive to control costs.[405] Indeed, each doctor would have the incentive to charge higher prices for medical services so as to capture a greater share of

399. *See id.* at 101–02 (explaining why the NCAA would be justified in imposing some restrictions on its members).

400. Liebeler, *1984 Economic Review*, *supra* note 346, at 1055 ("There was no relationship between the vast bulk of the NCAA's activities in promoting and regulating college football and the price and output provisions of the television restrictions.").

401. Arizona v. Maricopa Cty. Med. Soc'y, 457 U.S. 332 (1982).

402. *Id.* at 348.

403. *See id.* (applying the per se rule to strike down the agreement).

404. *See* Liebeler, *1984 Economic Review*, *supra* note 346, at 1043–44 (explaining how *Maricopa County* relates to *Addyston Pipe*).

405. *See id.* at 1035 (explaining that, absent price fixing, the doctors "would have had an almost unlimited incentive to increase fees, driving up insurance premiums").

the money in the plan.[406] Should each participating doctor engage in such behavior, the cost of maintaining the plan would skyrocket.[407] It would be the tragedy of the commons all over again. From this standpoint, the maximum price served to prevent over-consumption of the plan's resources so that it could be sustained.[408] Indeed, without the ability to control opportunistic behavior, it is questionable whether the doctors would have entered into their arrangement in the first place.[409] In *Maricopa County*, this argument was never made in defense of the maximum price controls, and the arrangement was held to be anticompetitive in violation of federal antitrust law.[410]

Where the Court has evaluated horizontal restraints under the rule of reason, as in *BMI* and *NCAA*, it has recognized that the restraints at issue could enhance consumer welfare.[411] In these cases, the Court could conclude that the restraints would ultimately enhance output, not reduce it. In the context of a common pool resource, however, it is certain that horizontal arrangements will restrict output, at least in the short-term. Indeed, in many respects, it is precisely *because* such arrangements restrict output that they increase efficiency by restraining consumption to more sustainable levels. If parties did not control the consumption of the underlying resource, overexploitation would lead to premature exhaustion of the resource. Thus, restrictions on resource consumption in the present, while controlling output, can actually maximize long run output. If courts can recognize that even horizontal agreements to set prices have the potential to be welfare enhancing arrangements, in principle

---

406. The late Professor Liebeler compared the situation to that of a group of people who go to a fancy restaurant and agree *ex ante* to split the bill equally irrespective of what any member of the group orders. In this context, each member of the group has an incentive to order more courses and more expensive dishes, as the added cost will be dispersed across all members of the group. Moreover, the strength of the incentive correlates with the size of the group—the larger the group, the greater the incentive to free ride in this fashion. Should all members of the group respond to this incentive, however, the dinner bill will be exorbitant. Liebeler, *1984 Economic Review*, *supra* note 346, at 1035.

407. *See id.* (describing why a doctor's wealth would decrease if other doctors in the plan acted opportunistically).

408. *See id.* (stating that "[i]t is hard to see how . . . [the] insurance plan could exist without maximum price controls").

409. *See id.* (stating that the persons would not have entered such plans without safeguards to control opportunism).

410. *See id.* at 1034 ("[T]he defendants never offered any plausible explanation of how the maximum prices contributed to the efficiency of the insurance plans.").

411. *See* NCAA v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 101–02 (1984) (discussing how NCAA rules preserve collegiate sports as a product); Broad. Music Inc. v. Columbia Broad. Sys., 441 U.S. 1, 20–21 (1979) (explaining how blanket licenses facilitate the copyrighted music market).

there is no reason why they could not also consider the welfare benefits of efforts to reduce the exploitation of open-access resources.

Although cooperative solutions to common pool resources problems provide potential efficiency gains, it is doubtful that such gains are sufficient to safeguard such arrangements under existing precedent. The potentially anticompetitive nature of the specific arrangements could be fatal. Where fisheries are in sufficient peril, however, the outcome may be different, as there is precedent for allowing otherwise anticompetitive conduct in such situations in order to preserve the underlying resource.

A local or regional fishery monopoly might create a less than ideal situation. The relevant policy question, however, is whether it is worse than the alternative. Any dead weight losses resulting from the accumulation and abuse of market power in a fishery is likely to be less than the efficiency losses resulting from open-access or inefficient government regulation.[412] Professor Yandle is skeptical that the accumulation of market power in local or regional fisheries is a serious concern at all: "In the absence of government sanctions that block competitive entry, it is difficult to see how regional fishing associations . . . could effectively cartelize major product markets."[413]

With global markets, fisheries will compete with one another—and with other food sources—for market share.[414] This development should further reduce the threat of market power. Under existing law, the relevant market for antitrust analysis "must include all products 'reasonably interchangeable by consumers for the same purposes.'"[415] This requirement would seem applicable to many types of fish and seafood products. Shrimpers in the Gulf of Mexico may well compete with shrimpers from overseas. There are real differences between Alaskan King salmon on the one hand, and farm raised Atlantic salmon on the other, but it is not at all clear that the differences mean there is not a single market for fresh salmon.[416] Were salmon fishers in the Pacific Northwest able to reduce their catch substantially below the maximum

412. *See* Edwards, *supra* note 59, at 266 (reviewing studies that compare dead weight losses resulting from monopolies to inefficiency losses resulting from open-access).

413. Yandle, *supra* note 121, at 49.

414. *See* Edwards, *supra* note 59, at 266 (citing the work of Cheung, who found "that private owners of separate resources might compete with each other and/or importers in the marketplace").

415. United States v. Microsoft Corp., 253 F.3d 34, 52 (D.C. Cir. 2001) (en banc) (quoting United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 395 (1956)).

416. Having eaten Alaskan King salmon within hours of having caught it in a remote stream, the author certainly recognizes that there is an appreciable difference between such fish and farm-raised Atlantic salmon. This distinction does not mean, however, that the difference is economically significant for purposes of a market power analysis.

sustainable yield, it is not clear that they would have sufficient market power to charge supercompetitive prices. Indeed, the growth of aquaculture worldwide may obviate concerns about local fishing associations' ability to obtain and wield market power.

The rule of reason should be applied where the conduct in question may have some redeeming virtues, specifically if the conduct or arrangement may enhance social welfare.[417] On the other hand, "[a] decision to apply a per se rule should be a decision that the conduct has no redeeming virtues, or at least none worth considering."[418] When courts apply the per se rules to collusive fishery arrangements, they are implicitly rejecting the notion that the conservation benefits of such arrangements are socially beneficial—or at least not sufficiently socially beneficial to merit consideration in an antitrust analysis. The problem is two-fold. First, as the Supreme Court has acknowledged, "For the sake of business certainty and litigation efficiency [the law] tolerate[s] the invalidation of some agreements that a full-blown inquiry might have proved reasonable."[419] Second, the error of invalidating an arrangement under a per se rule that is in fact net beneficial is more serious than subsequently invalidating conduct that was initially upheld. As Judge Easterbrook notes:

> If the court errs by condemning a beneficial practice, the benefits may be lost for good. Any other firm that uses the condemned practice faces sanctions in the name of stare decisis, no matter the benefits . . . . [J]udicial errors that tolerate baleful practices are self correcting while erroneous condemnations are not.[420]

The cost of an overly restrictive antitrust rule is not simply the invalidation of marginally more efficient economic arrangements. In at least some instances, an overly restrictive rule will perpetuate unsustainable practices that threaten to deplete, if not exhaust, marine fish populations. The trade-off is between the risk of economic inefficiency and that of substantial environmental harm, which can itself represent an economic inefficiency. While restrictions on output may be undesirable from a consumer welfare standpoint, such potentially anticompetitive behavior may be net welfare-enhancing in comparison to the likely alternative of fishery depletion.[421] Viewed in this

---

417. *See* Gerhart, *supra* note 109, at 330 (stating that the per se rule should not be applied if the conduct at issue has redeeming values worth evaluating).

418. *Id.*

419. Arizona v. Maricopa County Med. Soc'y, 457 U.S. 332, 344 (1982).

420. Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2–3 (1984).

421. In this sense, allowing such an outcome can be seen as a welfare-enhancing "second-best" situation, in that it is better than any likely alternative scenario, even though it does not conform with textbook definitions of a perfectly competitive outcome. *See generally* Peter J.

light, there seems to be ample justification for evaluating the potentially collusive conduct of private fishery associations under the rule of reason, rather than a per se rule. As Professor Yandle argues, "cooperative efforts by fishermen to restrict access to a commons, thereby sustaining a fishery, serve the joint interests of the fishermen and consumers."[422] Indeed, in some cases the optimal outcome will be for lowered output and increased prices to ensure fishery sustainability.

B. Statutory Fixes

Protection of fisher conservation organizations from antitrust laws need not come from the courts. As already noted, existing precedents discourage fishers from adopting collaborative arrangements that could be subject to antitrust scrutiny.[423] Thus, Congress could expand the existing cooperative exemption so as to encompass a wider array of potential fisher organizations. Another alternative would be to create an exemption for collaborative entities that a regulatory agency would certify or otherwise approve. Oversight by the NMFS or some other agency could alleviate concerns that an antitrust exemption would enable the creation of true anticompetitive cartels in fishery markets.

There are already numerous exemptions to antitrust laws, including some that are specifically designed to ensure the preservation of institutions with social or other value.[424] In 1970, Congress created an antitrust exemption for newspapers to help ensure that major cities would continue to be served by

---

Hammer, *Antitrust Beyond Competition: Market Failures, Total Welfare, and the Challenge of Intramarket Second-Best Tradeoffs*, 98 MICH. L. REV. 849 (2000). As Hammer notes, "Analytically, the issues raised by intramarket second-best tradeoffs are similar to those raised by the efficiency defense long advocated by Oliver Williamson," and that which underlies the ancillary restraints doctrine. *Id.* at 876. For additional background on "second-best tradeoffs," see generally Richard S. Markovits, *Monopolistic Competition, Second Best, and the Antitrust Paradox: A Review Article*, 77 MICH. L. REV. 567 (1979); Richard S. Markovits, *Second-Best Theory and Law & Economics: An Introduction*, 73 CHI.-KENT. L. REV. 3 (1998); Andrew P. Morriss, *Implications of Second-Best Theory for Administrative and Regulatory Law: A Case Study of Public Utility Regulation*, 73 CHI.-KENT L. REV. 135, 170–76 (1998); Oliver E. Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18 (1968); Oliver E. Williamson, *Economies as an Antitrust Defense Revisited*, 125 U. PA. L. REV. 699 (1977).

422. Yandle, *supra* note 121, at 49.

423. *See supra* Parts IV.A–B and accompanying text (describing agreements within the fishery context that were held to be in violation of the Sherman Act).

424. *See supra* notes 206–07 (referencing exemptions).

multiple newspapers. Under the Newspaper Preservation Act,[425] newspapers in the same city are authorized to merge their ownership, production, and administration pursuant to a joint operation agreement, while keeping the papers' respective reporting and editorial operations separate. While such consolidation would normally raise substantial antitrust concerns, Congress made the policy judgment that consolidation of newspaper ownership was preferable to allowing numerous daily newspapers to fail.[426] On the same basis, Congress could adopt a limited antitrust exemption for fishery associations so as to facilitate greater conservation efforts. As noted above, while such associations may pose a potential risk of anticompetitive conduct, the welfare losses of consolidation within portions of certain fishing markets may well be less than the eventual welfare losses that will result from continued unsustainable fishing practices.[427]

As an initial step, Congress could, for example, explicitly authorize the creation of cooperatives in fisheries operating under a government imposed total allowable catch. The benefits of such an exemption would be that fishers could organize more associations like the PWCC and Pollock cooperative. On the other hand, requiring the creation of a government-set total catch limit as a prerequisite for an antitrust exemption continues to rely upon regulatory agencies to set sustainable catch levels—something regulatory agencies have not done well to date.[428] Not only does the history of fishery regulation in U.S. waters suggest that the imposition of such limits in many fisheries is unlikely, allowing fisher associations to second-guess the government-set catch limit and adopt their own, more restrictive catch limits would provide greater protection against fishery collapse.

Fishers often have greater knowledge of fishery conditions than the councils that regulate them.[429] Moreover, when fishers have a clear stake in the

---

425. Newspaper Preservation Act, 15 U.S.C. §§ 1801–1804 (2000).

426. *See* Edwin C. Baker, *Media Concentration: Giving Up on Democracy*, 54 FLA. L. REV. 839, 858 (2002) (discussing the advantages and disadvantages of the Newspaper Preservation Act). Some commentators believe that the Newspaper Preservation Act may in fact threaten the maintenance of a free press. *See, e.g.*, David A. Anderson, *Freedom of the Press*, 80 TEX. L. REV. 429, 488 (2002) (discussing how the Act can enable a newspaper to close down a competitor or obtain a legalized monopoly); Maurice E. Stucke & Allen P. Grunes, *Antitrust and the Marketplace of Ideas*, 69 ANTITRUST L.J. 249, 271 n.105 (describing the act as a "Faustian bargain").

427. *See supra* notes 362–68 and accompanying text (describing danger of continued unsustainable practices).

428. *See supra* notes 61–75 and accompanying text (describing failure to set sustainable catch levels).

429. *See supra* notes 53–54 and accompanying text (commenting on the skill and knowledge of fishers).

fishery, either through formal ITQs or informal property rights, they have an incentive to protect the value of the resource by refraining from excess consumption. As noted above, the experience in New Zealand suggests that fishers with a tangible stake in the fishery shift from being pure exploiters of the resource to stewards.[430] This fact might suggest that an alternative condition to a government-set catch limit would be the recognition of formal or informal property rights in the fishery, as well as the creation of management institutions capable of ensuring the observance of sustantiable catch limits.

Another alternative would be for Congress to prescribe, in some detail, the various factors that courts would be required to consider in antitrust actions brought against fisher organizations that purport to limit or otherwise regulate the catch in order to conserve the resource. For instance, antitrust cases could be subject to a decision rule whereby a fisher organization that purports to set catch levels at or near the maximum sustainable yield would be presumed legal. When such an initial showing is made, the burden of demonstrating that the fisher organization is, in fact, acting in an anticompetitive manner could shift to the government agency or private plaintiff.

While statutory reform could be more detailed and definitive than judicial precedent, statutory reforms would not be without their potential problems. In particular, statutory reforms are likely to result in rigid, inflexible rules that could prevent the development of alternative arrangements. As with oil field unitization, well-intentioned legislation may actually preclude the development of even more welfare-enhancing and conservation-oriented arrangements than those envisioned by the legislative drafters.[431] Any exemption will necessarily be overinclusive, underinclusive, or both. Whatever balance is struck between conservation and collusion, it is likely that further experience with collaborative fishery organizations will illustrate the benefits of alternatives. Yet, once a statutory reform is adopted, Congress may not revisit the issue for many years.[432]

If, as noted at the outset of this article, fundamental fishery reform is unlikely, then statutory antitrust exemptions may be equally so. While such exemptions exist, there is little reason to believe that Congress would be any more willing to create such exemptions, so as to allow the development of private fishery management organizations, than it is to authorize the adoption of ITQ regimes by regional fishing councils. Indeed, one reason to create room

430. *See supra* notes 89–90, 280–81, and accompanying text (explaining the New Zealand program and its results).

431. *See supra* Part V.A and accompanying text (examining oil field unitization).

432. At the time of this writing, Congress had not significantly amended the Magnuson Act in twenty-seven years, making the act overdue for reauthorization.

for private responses to fishery conservation concerns is precisely because political responses take time and—at least in this context—rarely address the underlying conservation problems. This fact makes allowing private alternatives that much more important.

VII. Conclusion

Insofar as antitrust laws inhibit the development of formal cooperative arrangements among resource users, it forces users to adopt one of three courses, all of which may be substantially less optimal than the reliance upon formal cooperative efforts to control resource use. First, they may seek government regulatory measures to limit consumption of the resource. Given the poor record of regulatory measures aimed at conserving fish stocks, this is a less than ideal course. The adoption of property-based conservation schemes, such as ITQs, may provide substantial benefits, but such proposals can be politically difficult to implement.[433] A second option is to adopt informal community restraints upon overfishing. Such measures can be quite effective at controlling catch levels in many contexts.[434] Formalizing such arrangements is not an option, however, because to memorialize the rules into formal contracts is to raise potential antitrust concerns. A third option is simply to leave well enough alone, and to extract rents from the fishery so long as one can. Given the nature of open-access commons, this latter course may well lead to both economic and ecological ruin.

The obstruction of cooperative solutions to the commons problem is not likely to be unique to fisheries policy. At heart most, if not all, environmental problems are commons problems of some sort.[435] The pollution problem is just as much an example of overuse of a common resource due to the lack of binding constraints as the fisheries problem. Admittedly, where total catch limits are in place, antitrust law is more tolerant of agreements among fishing firms to allocate portions of the catch. Such arrangements enable firms to capture some, but not all, of the gains that would come from private property. Moreover, when there is no government-imposed limit on the total catch from a fishery, the limitation on vertical integration in fishing cooperatives—that is, the limitation on agreements between fishers and processors or wholesalers—

433. *See supra* 93–94 and accompanying text (describing difficulties in implementing these proposals).

434. OSTROM, *supra* note 32; *see also supra* Part IV.C (examining effectiveness).

435. *See generally* Hardin, *supra* note 30.

can make it more difficult for fishing firms to implement self-enforcing cooperative ventures.

The purported aim of antitrust law is to improve consumer welfare by proscribing actions and arrangements that reduce output and increase prices. Conservation aims to improve human welfare by maximizing the long-term productive use of natural resources, an aim that often requires limiting consumption to sustainable levels. While such conservation measures might increase prices in the short-run, when successful they enhance consumer welfare by increasing long-term production and ensuring the availability of valued resources over time. Insofar as antitrust law fails to take this into account, it bars the creation and evolution of ecologically valuable and socially beneficial arrangements among resource users. The threat to consumer welfare from potentially collusive arrangements is real, but no more so than that of resource depletion and environmental ruin.[436] A conservation cartel may force consumers to pay higher prices for a time, but the failure to conserve marine resources may lead to species extinction and ecosystem disruption. It is time to consider that the costs of antitrust law to conservation are greater than the threat of conservation cartels in the marine commons.

436. As Professor Yandle observes:

> The threats of wasted and destroyed fisheries, extinguished species, and diminished water quality in rivers are real, but the possibilities that associated monopoly restrictions will impose significant costs on the economy are purely speculative and, if realized, are apt to be small and fleeting.

Yandle, *supra* note 121, at 40.