A Market Solution to Green Marketing: Some Lessons from the Economics of Information

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John M. Church*

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INTRODUCTION

Many consumers would like to purchase products that will influence manufacturers to become environmentally responsible. Manufacturers and advertisers have responded to this consumer pressure by promoting the environmental attributes of their products and packaging. Indeed, although the initial rush has perhaps slowed, "green marketing"1 has become the dominant advertising phenomenon of the 1990s.2

Not all green claims are truthful, however, and few provide a complete picture of the environmental impact associated with the good or service advertised. The inherent conflict is clear: consumers will buy environmentally beneficial products to induce greater corporate environmental responsibility, yet manufacturers, striving for greater profits, may have an incentive to inflate, or even lie about, the environmental attributes of their products. As a result, some fear that consumers will make purchasing decisions based upon faulty information. This fear generates a demand for regulation of green marketing.

The perceived need to regulate green claims has predictably spawned several hearings and other efforts by various government entities. In March 1990, a ten-state Task Force of Attorneys General (the "Task Force"), the Federal Trade Commission ("FTC"), and the Environmental Protection Agency ("EPA") issued findings and recommendations regarding green marketing

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1. For purposes of this Article, the terms "green marketing," "green claims," and "environmental claims" are used interchangeably to refer to any advertisement or label that implies that purchase of the product or its packaging will have environmentally desirable consequences. Of course, no product is completely environmentally "benign." Consequently, the terms "environmentally benign," "environmentally beneficial," and similar terms used in this article refer to a comparison with other competitive products or earlier versions of the same product. See infra notes 224-229 and accompanying text (discussing general environmental claims).

2. See infra notes 166-227 and accompanying text.
in what has become known as the *Green Report I*. In May 1991, following additional hearings and commentary, the Task Force revised its recommendations in the *Green Report II*. The FTC separately held hearings in July 1991, after which the FTC issued guidelines describing its position concerning potentially deceptive environmental claims ("FTC Guidelines"). The United States Senate also held hearings on the environmental labeling of consumer products. The fear of deceptive advertising and consumer confusion has prompted an almost universal cry from legislators, bureaucrats, and academics for increased regula-
tion of green claims. Some commentators have even advocated


Several commentators do not call for increased regulation. See J. HOWARD BEALES & TIMOTHY J. MURIS, STATE AND FEDERAL REGULATION OF NATIONAL ADVERTISING 83-112 (1993) (arguing that the FTC should allow environmental claims where manufacturer may reasonably conclude product offers that feature); PETER S. MENELL, ECO-INFORMATION POLICY: A COMPARATIVE INSTITUTIONAL PERSPECTIVE 90-103 (John M. Olin Program in Law and Economics, Stanford Law School Working Paper No. 104, 1993) (explaining weakness and limitations of environmental labeling schemes and advocating implementation of environmental policy through the price system); James T. O'Reilly, Environmental Product Certification: The Legal Implications of Green Endorsements, 8
regulations to influence consumers' decisions to comply with the state's environmental policy goals regardless of whether those goals are consistent with consumer preferences.11

This Article asserts that such a paternalistic approach is both unwise and unnecessary. Specifically, increased regulation deters manufacturers from touting environmental attributes of their products, which has the effect of limiting the interchange of information between manufacturers and consumers. Furthermore, current consumer doubt and lack of trust in environmental advertising does not evidence market failure. Instead, uncertainty reflects a well-functioning market for information about environmental attributes. The market, operating without significant regulatory impediments, efficaciously closes informational gaps and best promotes environmental goals.

Part I of this Article briefly describes environmental attributes of products and the growing "green market." Part II then analyzes the appropriate policy goals aimed at regulating the green market. In particular, Part II discusses the various methods of measuring the environmental impact of a given product and concludes that measurement is difficult and imprecise. Part II concludes that maximizing the flow of beneficial information to consumers is the only legitimate regulatory goal of policies directed at environmental advertising.

Part III analyzes the green market using the economics of information ("EOI") as a paradigm. According to EOI, consumer distrust of advertising messages is completely appropriate, and is highest when the cost of obtaining information to evaluate an advertising claim is high. This uncertainty evidences an efficient market,12 not market failure.

Although the green market functions efficiently, proposals for green advertising regulations nonetheless continue to surface. Part IV discusses these proposals as well as existing regulatory mechanisms, focusing on three prominent models of


11. See infra notes 106-117 and accompanying text (discussing proposals that would manipulate the market to accomplish undefined environmental policies).

12. The prevailing measure of "efficiency" is "Pareto optimality," a situation said to exist when it is impossible to effect a change benefitting one individual without harming someone else. For a discussion of Pareto efficiency and other competing economic welfare measures, see Jules L. Coleman, Efficiency, Exchange and Auction: Philosophic Aspects of the Economic Approach to Law, 68 Cal. L. Rev. 221 (1980).
regulation: anti-deceptive regulations, definitional regulations, and eco-logo regulations.

Part V critically examines the various regulatory alternatives and concludes that the regulation of deception is the only appropriate regulatory goal. Additional environmental advertising regulation is undesirable because definitional standards and eco-logo programs require that regulators make environmental policy decisions prior to enacting the advertising regulation. The advertising message is thus manipulated to accomplish the regulator's environmental agenda. Such an approach is fundamentally inconsistent with the appropriate goals of advertising policy and with the free market approach to environmental regulation.

I. THE MARKET FOR GREEN: CONSUMER PREFERENCES FOR ENVIRONMENTALLY SAFE PRODUCTS

Earth Day 1990 represented an environmental awakening for the mainstream public. Thereafter, ecology became a con-

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cern no longer reserved only for a few activists. According to a post-Earth Day Gallup Report, seventy-six percent of American consumers consider themselves "environmentalists."16 American consumers are highly concerned about the environment. In addition, approximately 20% of the population is "highly concerned" about the environment. See Evaluation of Environmental Marketing Terms, supra note 13, at 8, Table 2.1, (summarizing results of various surveys); Hastak et al., supra note 13, at 34 (pagination added) (reporting Roper Organization survey, which was commissioned by Citizens for the Environment, Inc., showing that 85% of respondents were "very concerned" or "somewhat concerned" about the disposal of solid waste).

Although the use of survey data to predict behavior or gauge attitudes is potentially troublesome, consistency among surveys lends some credence to the results. The use of survey data is a theoretically sound method for determining consumer opinions on various issues, products, and practices. Reliability of survey responses is conditioned upon a variety of factors, including the experience of a research organization, its managers, and its interviewers; the history of the organization's work in the field or with a particular company; sample size and composition; question format (leading, open-ended, or pre-coded questions); question content (subject matter of the survey); the location where the survey is administered; the time at which the survey is administered (pre- or post-litigation); and the length of the survey. See Zippo Manufacturing Co. v. Rogers Imports, Inc., 216 F. Supp. 670, 680-82 (S.D.N.Y. 1963) (discussing consumer survey procedures and noting trend for courts to admit such surveys into evidence); MacMillan, Inc., 96 F.T.C. 208, 273-92 (1980) (interpreting validity of FTC surveys measuring whether vocational school's advertising representations were deceptive); Warner-Lambert Co., 86 F.T.C. 1398, 1424-38 (1975) (describing test given to consumers to measure perception of advertising message); ITT Continental Baking Co., Inc., 83 F.T.C. 865, 900-16 (1973) (analyzing surveys conducted to test efficacy of nutritional claims in commercials on consumer perception of product); William Foddy, Constructing Questions for Interviews and Questionnaires 2-8, 112-25 (1993); Suzanne Bonamici, Note, The Use and Reliability of Survey Evidence in Deceptive Advertising, 62 Or. L. Rev. 561 (1983) (advocating use of survey evidence in challenges to advertising claims before the FTC); Ronald L. Marmer, Note, Opinion Polls and the Law of Evidence, 62 Va. L. Rev. 1101, 1124-25 (1976) (discussing problems of adequately sampling the proper group in opinion polls); A. Regula Herzog & Jerald G. Backman, Effects of Questionnaire Length on Response Quality, Pub. Opinion Q., Winter 1981, at 549 (analyzing effect of questionnaire length on
can consumers now consistently rank environmental protection as one of our country's most important issues17 and have expressed their concern for the environment by desiring to purchase products they perceive as safer for the environment.18

reliability and uniformity of results); Benjamin Lipstein, In Defense of Small Samples, J. Advertising Res., Feb. 1975, at 33, 34 (identifying and explaining sources of errors and biases in sample surveys); J. Thomas Rosch, Marketing Research and the Legal Requirements of Advertising, J. Marketing, July 1975, at 69, 70 (discussing importance of marketing research in FTC litigation over whether advertising is deceptive).

17. See, e.g., National Solid Wastes Management Association, Public Attitudes Toward Garbage Disposal (1989), reported in Assessing the Environmental Consumer Market, supra note 13, at app. A-4 (reporting that municipal solid waste disposal ranked second to public education as most serious problem facing local officials); Hastak et al., supra note 13, at 42 (pagination added) (citing results of survey by Environmental Research Associates, reporting that environment ranked as important as homelessness, poverty, and education); id., at 37 (pagination added) (citing surveys by the Food Marketing Institute and the Good Housekeeping Institute, reporting that garbage and solid waste disposal are considered more serious problems than nuclear safety, food safety, and national defense, and that concern for environmental problems rated second only to drug problems); Ned Zeman & Lucy Howard, Priorities, Newsweek, Apr. 2, 1990, at 5, 5 (reporting that clean environment ranked second only to a happy family life as indispensable); see also Actions Versus Assertions: the Gap Narrows, Green MarketAlert, May 1993, available in Westlaw, PTS-Promt Database (reporting results of Simmons Market Research Bureau survey which showed the two greenest consumer segments increased from 43% of the populace in 1991 to 53% in 1992, while the “unconcerned” segment decreased from 19% to 14% over the same period); Chase & Smith, supra note 14, at S-2 (reporting results of 1992 poll showing consumer concern about the environment growing rather than abating); Green and Getting Greener, Green MarketAlert, Jan. 1993, available in Westlaw, PTS-Promt Database (reporting results of 1992 Environmental Research Associates survey showing that 51% of consumers said they “always” or “usually” look for green labelling, compared to 32% in 1990).

There is some dispute about what role the “grassroots” environmental movement has played in policy development. One commentator describes support for environmental protection as a “permissive consensus” where there is “widespread but not terribly intense public support.” Riley E. Dunlap, Public Opinion and Environmental Policy, in Environmental Politics and Policy: Theories and Evidence 131 (J. Lester ed., 1989). The “government has considerable flexibility in pursuing the goal and is not carefully monitored by the public.” Id.

18. One survey found that 89% of adults were concerned about the environmental impact of the products they buy. Bruce Horovitz, Firm Exercises Its Social Consciousness, L.A. Times, Dec. 5, 1989, at D-1 (citing 1989 Michael Peters Group poll). A survey performed by the magazine Packaging in 1990 found that 20% would be willing to pay 6 to 10 cents more for a product packaged in “easy-to-recycle” material. Melissa Larson, Consumers Grapple with Green Packaging, Packaging, July 1990, at 8, 8-10. See also Steve Cooper, Family Forum, Better Homes & Gardens, Mar. 1994, at 20, 20 (noting that 63% of respondents bought low-phosphate detergents and 56% bought low-flow faucets and shower heads); Carl Frankel, Deep Green Product Prices: Where They Are,
Yet, consumers' desire to purchase environmentally safe products does not always affect actual purchasing decisions. Although many consumers consider the relative environmental impacts when purchasing products, fewer will actually pay a premium for such attributes. A 1991 Wall Street Journal/NBC News poll found that seventy-five percent of those surveyed considered important the environmental reputation of a product

Where They're Headed, GREEN MARKETALERT, Nov. 1992, available in Westlaw, PTS-Promt Database (reporting that Roper Organization/Johnson Wax survey found that consumers would pay a premium of four to five percent for green products in eight categories); Felix H. Kent, Green Marketing, N.Y. L.J., Feb. 22, 1991, at 3, 35 (noting that consumers are willing to pay up to five percent more for environmentally sound products). Other surveys indicate that from 77% to 90% of adults would pay more for a product packaged in recyclable or biodegradable material. Most Would Pay More For Cleaner Environment, U.S.A. TODAY, Apr. 13, 1990, at 10A. Fifty-seven percent of those that U.S.A. Today surveyed said they would pay 15% more for groceries packaged with recycled materials. Id.; see also Environmental Labeling of Consumer Products: Hearing Before the Subcomm. on the Consumer of the Senate Comm. on Commerce, Science, and Transportation, supra note 7, at 46 (statement of Denis Hayes, quoting a 1989 Ad Age/Gallup Organization poll that found that 90% of women and 87% of men would be willing to pay more for products or packaging made environmentally safer); HASTAK ET AL., supra note 13, at 26 (pagination added) (reporting results of an ABT Associates survey that 90% of respondents indicated willingness to pay more for environmentally friendly products). A Wall Street Journal/NBC News survey found that 67% would pay 15 to 20 cents more per gallon for a less polluting gasoline; 85% would pay more for more fuel-efficient and less polluting automobiles, even at the expense of safety. Rose Gutfeld, Shades of Green: Eight of 10 Americans Environmentalists, at Least They Say So, WALL ST. J., Aug. 2, 1991, at 1. One survey reported that in 1993, 18% of respondents ranked the environment as "an important factor in brand choice, placing it behind 'past experience with the brand' (82%), 'reasonably priced' (64%), and 'reputation for quality' (47%) in the first tier, and behind 'well-known/well-advertised' (26%) in the second tier." The Return of Roper's TrueBlue Greens: Less Is More, GREEN MARKETALERT, Feb. 1994, available in Westlaw, PTS-Promt Database. This represents a six percent increase for environmental considerations since 1989. Id. A survey conducted by Eurobarometer in April 1992 revealed "that 70% of all Europeans were prepared to pay more for environmentally-friendly products. Twenty-one percent of U.K. citizens polled even went so far as to say they would pay up to 50% extra for 'green' products." Green Labelling: European Eco-Label About to Be Flushed Away? EUROPE ENV'T, July 26, 1994, available in Westlaw, PTS-News Database.

19. See HASTAK ET AL., supra note 13, at 42 (pagination added) (citing Environmental Research Associates survey, showing that 40% of respondents avoided purchasing product because product or package was harmful to environment); Larson, supra note 18, at 8-10 (reporting that 65% of consumers say that packaging labeled recyclable "often or sometimes" affected decision to buy product); Most Would Pay More for Cleaner Environment, supra note 18, at 10A (stating that 52% of respondents claim they stopped buying products made by companies they thought were polluting).

or manufacturer, but only fifty-four percent actually selected a more expensive product for environmental reasons. 21 Similarly, fifty-eight percent of adult men in a separate survey said that aerosols should not be used, yet eighty-seven percent had purchased aerosols in the previous six months. 22

Nevertheless, the number of consumers considering environmental impacts in their purchasing decisions remains substantial. Nearly one in every two consumers has altered his or her purchasing decisions to help protect the environment. 23 As a result, several commentators see the willingness of consumers to consider environmental attributes in their purchasing decisions as a way to use market forces to influence manufacturers' environmental decisions. 24 These commentators seemingly prefer manipulating advertising messages to accomplish undefined (and perhaps undefinable) environmental goals, an inefficient and inconsistent policy.

II. DEFINING THE GOAL: DOES REGULATION INCREASE TRUTH?

Lawmakers commonly offer two rationales to justify increased regulation of environmental advertising: i) consumers are uncertain and confused about the environmental impact of products, and ii) definitions that are commonly used by environ-

21. Gutfeld, supra note 18, at 1 (stating that 54% of respondents chose a more expensive alternative because of environmental concerns); HASTAK ET AL., supra note 13, at 26 (pagination added) (citing ABT Associates survey, showing that 51% of consumers considered the environmental attributes of a product and/or company when selecting a product).

22. New Study Finds Green Confusion: Consumers' Environmental Attitudes Differ From Their Buying Habits, ADVERTISING AGE, Oct. 21, 1991, at 1. Similarly, 60% of adult women said that aerosols should not be used for toiletries and household cleaners, but 49% had purchased more aerosol hair sprays than non-aerosol hair sprays over the same time period. Id.

23. Gutfeld, supra note 18, at 1. A survey reported that of the consumers polled, 45% had read labels for environmentally harmful products, 34% reduced use of paper towels, 49% bought products made of recycled materials, 54% stopped using aerosol sprays, and 31% bought products because they were supposed to be good for the environment. Environmental Action, ADVERTISING AGE, Dec. 10, 1990, at 62. See also Chase & Smith, supra note 14, at S-2 (reporting that 60% of survey respondents more likely to purchase product because of green claims today than they were three years ago). An unscientific survey of 10,000 Better Homes and Gardens readers found that 88% reported having seen green advertising in recent years. Cooper, supra note 18, at 20.

24. See infra notes 230-234 and accompanying text (inferring that consumer confusion dilutes the efficacy of green advertising and subsequently the development of environmentally positive market forces).
mental advertisers lack uniformity. If regulators were concerned only about consumer confusion, the policy goal would be clear: educate the consumer. Consumer confusion, however, merely reflects scientific uncertainty concerning the environmental impact of products rather than a break-down in educating consumers. Therefore, this Article later establishes that eliminating deceptive advertising on a case-by-case basis is the only legitimate regulatory policy.

A. SCIENTIFIC UNCERTAINTY AND ENVIRONMENTAL IMPACTS: HOW GREEN IS GREEN?

Most of the scientific uncertainty in assessing the environmental impact of a product, package, or manufacturing process concerns measuring tradeoffs of one environmental benefit for another. Unfortunately, such tradeoffs are inherent in environmental policy decisions. Emphasizing one environmental attribute will often decrease one type of environmental damage, but only at the expense of increasing another. For example, efforts to reduce the use of chlorofluorocarbons ("CFCs") and other ozone-depleting chemicals have induced companies to replace aerosol propellants with propellants contributing to ground-
Similarly, switching from polystyrene to paper food containers reduces solid waste; manufacture of polystyrene containers, however, uses less energy and produces less atmospheric and waterborne emissions than does the production of paper. The environmental impact of paper grocery sacks versus plastic is also uncertain. Under certain assumptions, plastic sacks use less energy, contribute less to the volume of solid waste, and produce less water and air pollutants than paper sacks.

Switching from plastic to paper may cause other problems as well. McDonald's, responding to economic pressure and advice from the Environmental Defense Fund, switched its packaging from polystyrene, the symbol of American environmental excess, to plastic-coated paper. In the years before making this well-publicized switch, however, McDonald's had established polystyrene recycling facilities in 600 restaurants and had planned to implement 8000 more. By converting from polystyrene packaging to plastic-coated paper, McDonald's switched from the symbol of American environmental excess to plastic-coated paper wrap for sandwiches and plastic coated cardboard cups.

Substances. See also 40 C.F.R. § 82 (1994) (codifying the EPA ban on CFCs).


31. Id. at 4-4 to 4-27. See TELLUS INSTITUTE, CSG/TELLUS PACKAGING STUDY (1992) (Executive Summary).

32. FRANKLIN ASSOCIATES, LTD., supra note 30, at 1-4 to 1-13; see also infra text accompanying notes 86-105 (discussing the different environmental impact conclusions between disposable and cloth diapers that result from altering assumptions).

33. Scott Hume, McDonald's, ADVERTISING AGE, Jan. 29, 1991, at 32. Kids Against Pollution had sponsored a letter writing campaign to McDonald's, expressing its concern that polystyrene food packaging was dangerous for the environment. Janice Castro, One Big Mac, Hold the Box!: McDonald's Faces a Children's Crusade Against Polystyrene, TIME, June 25, 1990, at 44. McDonald's reacted by pressuring its polystyrene suppliers to shift to environmentally benign processes. Hume, supra, at 32. Public pressure, however, continued to mount, and in mid-1990 the Environmental Defense Fund offered its assistance to help McDonald's "green-up" its business and its image. Id. As a result of this alliance, McDonald's switched from polystyrene to plastic coated paper "quilt wrap" for sandwiches and plastic coated cardboard cups. Id.

34. Richard A. Denison, Forum: McDonald's Container Decision: Good or Bad?, GANNETT NEWS SERVICE, Nov. 18, 1990; Castro, supra note 33, at 44. Although the environmental wisdom of its decision to switch to plastic-coated paper is subject to debate, the public relations aspect has been a success. Surveys show that consumers now widely view McDonald's as the most environmentally responsible company in the country. Carl Frankel, Restaurant Chains and the Environment, GREEN MARKET ALERT, June 1993, available in Westlaw, PTS-Promt Database.
Polystyrene to paper, McDonald's sent a budding polystyrene recycling industry into a tailspin.35

Similar problems exist regarding other aspects of the solid waste crisis. Approximately eighty percent of all solid waste ends up in a landfill.36 In twenty years, eighty percent of the nation's existing landfills could reach capacity and close.37 The establishment of new landfills, however, faces opposition from local interests because of perceived health and environmental concerns.38 As a result, the EPA has initiated many programs to reduce the amount of solid waste.39

The best method for dealing with the solid waste "crisis" is not clear. Although strongly promoted by the EPA, recycling is not necessarily the most environmentally appropriate option. Some paper recycling mills are chronic polluters and may create a net environmental detriment.40 In addition, local recycling facilities do not exist everywhere. Critics argue that manufacturers mislead consumers when they promote products as recyclable when local facilities do not exist.41 Industry representatives contend, however, that labelling products as "recyclable" induces the development of a market for recyclable material.42

Further contributing to the solid waste dilemma is the advent of degradable plastics. Usually made degradable by the addition of cornstarch, these plastics offer questionable benefits because only the cornstarch additives break down; the plastic itself remains intact.43 In addition, including cornstarch to accomplish degradability may make recycling plastics more diffi-

37. Id.
38. Id.
41. See infra notes 184-186 and accompanying text (discussing the problem of unavailable recycling facilities).
43. See infra notes 200-212 and accompanying text (defining "degradable"). But see Jim Glenn, Degradables Tested in Compost Programs, Biocycle, Oct. 1989, at 28 (arguing that the manner in which biodegradable plastics break down may actually provide environmental benefits).
Recycling and degrading may thus become mutually exclusive alternatives. Moreover, degradable plastics may release substances that contaminate groundwater and create other health hazards.

In spite of these problems, several state legislatures have endorsed or mandated the use of degradable plastics. Although a lack of adequate information may account for this legislative endorsement, degradable plastics do provide some clear benefits. Plastic yokes used to create convenient six-packs of aluminum cans often have a devastating effect on wildlife, as animals may get caught in the rings and strangle or consume them and die from digestive tract failure. Degradable yokes would avoid much of this impact. Moreover, in spite of the technical and practical difficulties, degradability may hold the greatest promise for dealing with the solid waste crisis. Many argue that a market for degradable plastics, therefore, should continue in order to support research efforts.

45. Id. at 4-5; Green Report I, supra note 3, at 17.
47. See, e.g., Green Report I, supra note 3, at 31 n.21 (describing Minnesota's shift of position concerning degradable plastics).
49. Environmental Labeling of Consumer Products: Hearings Before the Subcomm. on the Consumer of the Senate Comm. on Commerce, Science, and Transportation, supra note 7, at 90 (testimony of Ramani Narayan, Senior Scientist, Michigan Biotechnology Institute) ("[T]here are emerging biodegradable technologies which can address this waste management issue, and we want to be careful that we do not eliminate them because of misconceptions and myths about what they can and cannot do."); Recyclable Materials: Plastics in the Environment: Hearings on H.R. 5000 Before the Subcomm. on National Resources, Agriculture Research, and Environment of the House Comm. on Science, Space, and Technology, 100th Cong., 2d Sess. (1988) (statements from industry representatives, environmentalists, and members of Congress on the advantages of degradable plastics in waste management).
B. PRODUCT LIFE-CYCLE ASSESSMENT: MEASURING THE RELATIVE GREEN OF PRODUCTS

Measuring a product's total environmental impact involves consideration of environmental impacts at various stages of the product's life. Environmental advertising claims focusing exclusively on waste issues fail to provide an accurate assessment of the product's true environmental impact. Notably, the latest wave of green advertising has lacked claims of energy efficiency or other resource use issues related to the environmental practices of the manufacturer.\(^50\) Policy-makers and consumers must consider such resource issues to assess accurately the environmental impact associated with any product.

To provide a more complete “cradle-to-grave” assessment of environmental impacts, many experts have focused on a process known as product life-cycle assessment (“PLCA”).\(^51\) PLCA developed in response to the growing concern over energy use in the 1970s, but the latest “green wave” has been virtually devoid of claims related to energy use.\(^52\) PLCA, however, has recently experienced a rebirth as a tool to measure the relative green of various products.\(^53\) Although proponents hail the PLCA as a panacea, others have reservations about the current usefulness of PLCA as a tool to measure total environmental impact.\(^54\)

\(^{50}\) See infra note 214 and accompanying text (discussing infrequency of energy use and resource conservation claims). This is in sharp contrast to the mid-1970s, when energy and resource use were at the forefront of consumer concern. **Society of Environmental Toxicology and Chemistry, A Technical Framework for Life-Cycle Assessment** 3 (1991) [hereinafter SETAC]; Mary Ann Curran, **Broad-Based Environmental Life Cycle Assessment**, 27 Env'tl. Sci. & Tech. 430, 432 (1993).


\(^{52}\) SETAC, supra note 50, at 3-4.

\(^{53}\) Curran, supra note 50, at 432.

\(^{54}\) See **Environmental Defense Fund, Comments of the Environmental Defense Fund on Scientific Certification Systems’ Lifecycle Inventory and the Environmental Report Card** 3 (prepared by Richard A. Denison 1992) ("EDF strongly believes that the use of lifecycle assessment . . . in the context of product/package certification cannot be justified on technical or policy grounds at this time . . . ."); Anne Magnuson, **What Has Happened to Waste Reduction?**, Am. City & County, Apr. 1991, at 30 (suggesting that once the PLCA is improved, it will encourage consumer "smart shopping"); Jerry Taylor, **Don't Restrict "Green" Product Advertising**, Consumer's Res. Mag., May 1992, at 23, 25 (arguing against restriction of green claims and life-cycle analyses and noting that "virtually every [PLCA] . . . undertaken recently has obliterated environmental 'conventional wisdom'"); Penelope Wang, **Going for Green**,
The EPA’s definition of PLCA involves examining the environmental impacts of a specific product by tracking its development from a raw material, through its production, and to eventual disposal. The Society of Environmental Toxicology and Chemistry ("SETAC"), a non-profit professional society representing environmental toxicologists, chemists, hazard assessors, and engineers, has been pivotal in developing PLCA. In 1990, SETAC hosted a conference to assess the current usage of PLCA and identify areas for future research. Importantly, the conference resolved that a complete PLCA should consist of three components: life-cycle inventory, life-cycle impact analysis, and life-cycle improvement analysis.

The first stage, inventory analysis, identifies and quantifies the "energy and resource use and environmental releases to air, water, and land" of raw materials used in the subject product. Unfortunately few PLCAs have advanced beyond the inventory analysis, because of the difficulty involved with balancing environmental impacts at different stages of the process. The impact analysis evaluates the toxicity and risk associated with the waste created by manufacturing the product, as well as the general environmental consequences of the inputs and outputs. The life-cycle improvement analysis yields results that are very complex and seldom provide definitive answers.

Advocates argue that PLCA represents a fundamental shift in paradigm from examining discrete environmental impacts to a more holistic approach. Pollution and other environmental

MONEY, Sept. 1991, at 98, 101-02 (suggesting that consumers avoid life-cycle analyses and instead look for energy-conserving products, and suggesting that the entire life-cycle concept may not be valid); Which are Best for the Environment?, 56 CONSUMER REP. 555 (1991) (noting that a life-cycle analysis can point out environmental drawbacks to both cloth and disposable diapers).

55. INVENTORY GUIDELINES, supra note 51, at 4-5. For example, the 3M Company’s life-cycle approach looks at how waste can be reduced or eliminated starting with the point of generation in the manufacturing operation, to its processing, treatment, or ultimate disposal as a residual hazardous waste. Curran, supra note 50, at 432.

56. SETAC, supra note 50, at xii. SETAC has formed a life-cycle assessment advisory group to “identify[ ] the state of the art in [PLCAs] and [identify] future research needs.” Id.

57. INVENTORY GUIDELINES, supra note 51, at 3.
58. Id. at 5; SETAC, supra note 50, at 1-2.
59. INVENTORY GUIDELINES, supra note 51, at 5.
60. Curran, supra note 50, at 434.
61. Id.; SETAC, supra note 50, at xviii; INVENTORY GUIDELINES, supra note 51, at 7-8.
63. Id. at 435.
impacts can occur at any stage. By examining the impacts of a product from “cradle-to-grave,” analysts may at least identify the relevant environmental trade-offs, even when there is no adequate resolution.64 In particular, PLCA may focus attention on some of the “upstream” effects associated with energy and resource use, processing, and manufacturing. Beyond emphasizing that trade-offs exist in environmental choices, however, technical and practical difficulties severely limit PLCA’s usefulness as a policy tool. These limitations range from the mundane task of gathering data to the dangers of interest group capture.

1. Limitations of PLCAs
   a. Data Availability

      Data may be unavailable either because they are confidential,65 or “because of a lack of a [necessary] methodology or resources.”66 One study found that PLCAs generally lacked a meaningful discussion on their sources of information.67 Often, the analyst may have to use highly generalized data to fill informational gaps.68

   b. Defining the Boundaries

      Providing a “complete” assessment of the environmental impacts of a product could become a herculean task without a reasonable limit on the scope of the analysis.69 One commentator stated that “in constructing an inventory for cloth diapers, the analyst would need to decide whether to include the energy required to produce the fertilizer used to grow the cotton, and if so, whether to assume hydroelectric or coal-based power.”70 The lack of any principled basis for defining the boundaries casts doubt on the usefulness of the PLCA’s conclusion.

   c. Changing Technology or Product

      Changes in a particular product’s characteristics or the technology or inputs in the manufacturing process could make a

64. Id.
65. INVENTORY GUIDELINES, supra note 51, at 29-30, 59-60.
66. Curran, supra note 50, at 433-34.
67. INVENTORY GUIDELINES, supra note 51, at 29-30, 59-65 (explaining that few current studies adequately disclose or discuss data issues).
68. Id.
70. Grodsky, supra note 10, at 221.
PLCA for the product obsolete.71 "If a few material or technology inputs change, initial assumptions may no longer hold, and the inventory might require a complete updating."72

d. Equivalency of Use

To compare the impacts of competing products, analysts must develop "functional equivalency" ratios or "equivalent use" ratios to account for different patterns of use.73 For example, a PLCA comparing a ceramic mug and a polystyrene cup must calculate the environmental impact on a per use basis; otherwise, the ceramic mug's impact becomes overstated.74 Similarly, consumers must use more plastic grocery sacks than paper sacks to hold the same amount of groceries.75 Thus, one PLCA assumed a ratio of 1.5 or 2 polyethylene sacks to one paper sack, but there is no guarantee that this assumption is correct.76 Establishing appropriate ratios depends on obtaining meaningful data about consumer behavior, which raises the concerns regarding data availability already noted.77

e. Expense

Performing complete PLCAs may become prohibitively expensive.78 The potential for abuse and the tentative conclusions that PLCAs yield make the costs to complete a PLCA difficult to justify.

f. Apples to Oranges Comparisons

"When assessing the environmental burdens of two products, the results typically show an 'apples-to-oranges' compari-
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son. Translating these environmental risks into measurable, comparable impacts becomes a monumentally difficult task. Even if the PLCA accurately translates these results, localized conditions may further skew the conclusions. For example, disposable diapers may be appropriate in the West where water is scarce, but cloth diapers may be appropriate in the East where landfill space is scarce.

g. Interest Group Capture

A PLCA may become subject to biases and arbitrary assumptions. This means that “interest groups are free to emphasize the aspects most favorable to their own agendas,” particularly when PLCAs are privately funded. If PLCAs become consistently captured, the public may lose faith in the results.

2. Using PLCAs in the Diaper Wars

The much-publicized “diaper wars” illustrates the difficulties inherent in PLCA. In 1988, the National Association of Diaper Services (“NADS”) commissioned a study that concluded that disposable diapers significantly contribute to the solid

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79. Curran, supra note 50 at 433.
80. Id.; Office of Technology Assessment, supra note 69, at 61; Solid Waste, supra note 78, at 2222-23.
81. Holmes, supra note 78, at 46-47; Which are Best for the Environment?, supra note 54, at 556.
82. Selling Green, 56 Consumer Rep. 687, 691-92 (1991); Solid Waste, supra note 78, at 2223 (“The usefulness and credibility of [PLCA] to the public is threatened by varying deficiencies in methodology. [Such deficiencies] let you come out with virtually any result you want.” (quoting Richard Denison of the EDF)); see also Hannah Holmes, Science for Sale, Garbage, Sept.-Oct. 1991, at 46-47 (discussing the favorable results of a PLCA funded by the plastics' industry)
83. Office of Technology Assessment, supra note 69, at 61.
84. “‘Any analyst worth her salt can make a [PLCA] produce results favorable to a sponsor through judicious choice of modeling assumptions, data, and especially through careful framing of the questions that the study is meant to answer.’” Holmes, supra note 78, at 50 (quoting Reid Lifset, Associate Director of Yale University's Project on Solid Waste and the Environment).
85. Solid Waste, supra note 78, at 2223 (comments of Richard Denison of the EDF).
86. See generally Which are Best for the Environment?, supra note 54, at 555 (summarizing the reasons behind the controversy and citing studies by Arthur D. Little, Inc.; Franklin Associates, Ltd.; and Lehrburger, Mullen, and Jones); Fierman, supra note 29, at 91 (calling the problem “the great diaper dilemma” and quoting Allen Hershkowitz, a senior scientist at the National Resources Defense Council, as saying “[t]he diaper debate is unresolvable”).
waste crisis. In response, state legislatures proposed drastic measures, including diaper taxes, warning labels, and outright bans. Members of the disposable diaper industry responded vigorously with the American Paper Institute and Proctor & Gamble performing PLCA's of cloth and disposable diapers. These assessments, not surprisingly, concluded that the environmentally correct choice between disposable diapers and cloth diapers was ambiguous, but arguably favored disposable diapers. Accordingly, the API Study concluded that disposable diapers use less pre-consumer solid waste than cloth diapers. NADS then commissioned its own PLCA ("NADS Study") which concluded that cloth diapers, when laundered by a diaper service, are better for the environment than disposable diapers.

The differing results reached in the two PLCA's reflect their capture by respective sponsors. Several key assumptions account for the differing conclusions. The NADS Study omitted the energy use and environmental impact of transporting cloth diapers to consumers. The NADS Study also assumed that fifty percent of disposable diaper users and five percent of those using cloth diaper laundry services flush fecal matter before disposal. The API Study assumed that only five percent of disposable diapers users and fifty percent of cloth diaper users performed this task. Based on those assumptions, the API Study

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88. MENELL, supra note 10, at 34; Adam Smith's Money World: Green Marketing: Hype or Hope (WNET television broadcast, Apr. 12, 1991).
91. API Study, supra note 89, at 1-19 to 1-20; P & G Study, supra note 90, at 1-1.
92. API Study, supra note 89, at 3-11, 3-16 to 3-18.
94. NADS Study, supra note 93, at 5-7.
95. Id. at 21, 24, 32.
96. Id. at 84, 85.
97. API Study, supra note 89, at 1-6.
study concluded that cloth services used 5,921.9 gallons of water,\footnote{Id. at 3-21 (based on 10 diapers per day).} while the NADS Study concluded that cloth services used 1,376.4 gallons of water.\footnote{NADS Study supra note 93, at 85.}

The PLCAs also used different energy usage assumptions. The \textit{P \\& G Study} found that cloth diaper usage consumes three times more energy than usage of disposable diapers,\footnote{P \\& G Study, supra note 90, at 5-9.} while the NADS Study found that usage of disposable diapers consumes seventy percent more energy than usage of cloth diapers.\footnote{NADS Study, supra note 93, at 21.} The environmental benefit of co-generation accounts for much of the difference in energy consumption.\footnote{Curran, supra note 50, at 433. Co-generation is a process to create energy through incineration from soiled diapers. For an explanation of the pulp and paper manufacturing operation, see P \\& G Study, supra note 90, at V-9, V-10.} The \textit{P \\& G Study} counted co-generation as an energy credit, thereby reducing energy consumption.\footnote{P \\& G Study, supra note 90, at 5-9.} In contrast, the NADS Study did not provide any credit because it assumed that co-generation produced air pollution.\footnote{NADS Study, supra note 93, at 21.}

The subjective assumptions and decisions in the diaper studies pointedly display the inherent limitations of PLCA. Attempts to measure the environmental accuracy of claims and the "cradle-to-grave" environmental impacts of products are laudable. The scientific community, however, has not yet developed a consensus concerning how to measure environmental impacts to devise appropriate solutions to the environmental crisis. Without a scientific consensus, consumer confusion and distrust of manufacturers' environmental claims is not surprising. Indeed, this lack of trust indicates that the market for information functions efficiently.\footnote{See supra note 12 (describing efficient market for the purposes of this Article).}

\section*{C. ENVIRONMENTAL POLICY AND ADVERTISING POLICY}

Advocates of increased regulation commonly assert that consumer purchasing decisions can help resolve the environmental externality problem.\footnote{Pollution and environmental impacts associated with manufacturing are classic examples of externalities. See William J. \textit{Baumol} \& William E.} The externality problem arises because society bears a portion of the firm's environmental costs...
related to pollution and other environmental problems. These social costs are external to the firm’s profit maximizing decisions, which results in inefficiently high output. If consumer purchasing decisions or environmental regulations could force firms to consider environmental costs (i.e., to internalize the costs of pollution), then pollution and output would reduce to an efficient level.

Many commentators and regulators thus argue for increased regulation of environmental advertising and labelling to address consumer uncertainty. The *Green Report II* responded to the call for increased regulation of environmental advertising and labelling by favoring “uniform definitions” for terms such as degradable, compostable, recycled, and recyclable. 107 Such a definitional approach, however, requires that regulators make decisions concerning environmental policy before establishing uniform definitions. 108 As a result, consumers would receive only information consistent with the underlying environmental policy.

Other commentators have proposed alternatives that would turn green marketing into a tool to accomplish environmental regulatory policies. For example, Jamie Grodsky advocates granting the EPA the authority to establish binding minimum threshold requirements. 109 Grodsky suggests that “it may be impossible to prevent deceptive environmental advertising in a meaningful way without concurrently promoting environmental policy goals.” 110 Using the example of “recycled,” Grodsky argues that the FTC Guidelines lack adequately explicit minimum threshold requirements. He states:

[The FTC Guidelines] allow manufacturers to add together pre- and post-consumer waste in disclosing the percentage of a product that is recycled material. Although recycling of pre-consumer materials can be relatively energy efficient and should be encouraged, a definition such as this depresses the demand for post-consumer materials and reduces incentives for new consumer recycling programs. 111

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109. Grodsky, supra note 10, at 167-72. Grodsky would impose minimum standards for terms such as “recycled,” and permit the terms such as “recyclable,” “degradable,” and “compostable” only when appropriate facilities are locally available. *Id.* at 156, 167-72.
110. *Id.* at 172.
111. *Id.* at 175.
Similarly, Stephen Gardner, a former Assistant Attorney General from Texas, suggests that “[a]ny product that is called ‘recyclable’ must indeed be recyclable in each locality where the claim appears.”112 Other commentators trumpet the virtue of environmental advertising where it is “consistent with sound environmental policy”113 and where each term means “the same thing on every product making that representation.”114

These commentators and regulators appear willing to manipulate the market to accomplish undefined environmental policies. Indeed, the Green Report II views the market as “a powerful tool that can be used” to achieve environmental objectives.115 Senator Frank Lautenberg, the main proponent of federal legislation, asserts that “a free market relies on [common] standards and depends on free and accurate information.”116 Yet his proposed legislation establishes a series of “single meaning” definitions that would restrict information made available to consumers.117

Both the Green Report II and Senator Lautenberg fail to consider that advertising regulations may fail to achieve environmental policy goals. Consumer purchasing decisions may do little to affect the environmental externality problem.118 Peter Menell has argued that the price system incorporates environmental impacts better than either the EPA’s “Reduce, Reuse and Recycle” principles or reliance on environmental advertising.119 Even more pessimistic that advertising can accomplish environmental goals through consumer purchases, Howard Latin concludes that “decentralized decisionmaking” by consumers will prove “extremely inefficient” in the context of “environmental consumption.”120 In other words, consumers cannot gather suf-

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112. Gardner, supra note 10, at 56.
113. Downs, supra note 10, at 158.
114. Watman, supra note 10, at 174; see also Luehr, supra note 10, at 331 (discussing uniform definitions for environmental marketing terms).
115. GREEN REPORT II, supra note 4, at v.
116. Lautenberg, supra note 10, at 309.
118. See supra note 106 and accompanying text (discussing environmental externality).
119. MENELL, supra note 10, at 3-4 (using life-cycle analysis and modified life-cycle analysis to gauge the environmental impact of products).
120. Latin, supra note 27, at 189-90. Latin identifies five potential obstacles to an exclusively free market approach to pollution control: 1) consumers are ignorant of the environmental consequences of their purchases, and the complexity of environmental information prohibits them from obtaining adequate knowledge; 2) producers cannot determine which attributes of a product (price, quality, environmental efficiency) are decisive in stimulating a purchase; 3) a
icient information to make "efficient" decisions, and, even if they could, producers do not efficiently supply such information.121

We do not know, however, how a well-informed consumer would prioritize environmental issues or how those priorities would affect purchasing decisions. Consumers have only recently expressed a willingness to spend extra money for environmental attributes. Increased demand for environmental attributes will create added incentives for consumers and producers to gather and disseminate information. As consumers gather more information, in part through sellers' advertising efforts, consumer purchasing decisions may positively affect the internalization of external environmental costs.122 One commentator points to altering consumer behavior as a necessary condition to achieve additional gains in "environmental improvements."123 In addition, given the scientific community's

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121. Both Menell and Latin focus on the cognitive ability of consumers to process the relevant information. Latin, supra note 27, at 190-204; MENELL, supra note 10, at 9-13. Both authors recognize that the market is sensitive to such cognitive limitations. Latin and Menell also focus on more traditional market-based limitations, such as consumer and environmental externalities and free riding problems. MENELL, supra note 10, at 13-14; Latin, supra note 27, at 211-17. Indeed, the economics of information, explored in the next section, may be seen as a way of modeling the market's response to cognitive limitations. See infra notes 133-163 and accompanying text (discussing basic principles of the economics of information).

122. Because differences between public perception and "expert" opinions on the environment are often explained by misperceptions by the public, additional information may correct some of those misperceptions. See, e.g., William K. Stevens, What Really Threatens the Environment?, N.Y. TIMES, Jan. 29, 1991, at C4 (discussing disparities between public's and scientists' perceptions of various environmental risks).

123. See James Paul Kimmel, Jr., Disclosing the Environmental Impact of Human Activities: How a Federal Pollution Control Program Based on Individual Decision Making and Consumer Demand Might Accomplish the Environmental Goals of the 1970s in the 1990s, 138 U. PA. L. REV. 505, 539 (1989) ("Commentators and some governmental and regulatory officials are beginning to realize that further environmental improvements are contingent upon changing the behavior of businesses and individuals.").
lack of consensus on environmental impacts, consumers may make the environmentally correct decision on their own. For example, “paper versus plastic” is a difficult decision and either choice may be “correct.”

Recognizing that consumer decisions may deviate from policy goals, commentators and legislators who address green marketing are unwilling to rely on an educated and informed consumer. These commentators implicitly assume that consumers will not, or can not, make “appropriate” decisions. Because they will not rely on consumer choice, these commentators attempt to manipulate (or define) the messages conveyed to consumers in order to insure that purchasing decisions advance the “correct” policy goals. Aside from destroying consumer autonomy and acting with undue paternalism, this approach lacks internal consistency because it manipulates and guides consumer purchasing decisions under the guise of advertising regulation. In other words, to accomplish environmental policy goals, truth becomes irrelevant. The only relevant consideration becomes whether consumer decisions match the commentators’ perspective.

If the regulation of environmental advertising is an inefficient tool for implementing environmental policy, one might conclude that we should ban such advertising altogether. After all, consumer purchases inconsistent with regulatory goals would compromise environmental policy. Aside from the obvious First Amendment difficulties with an outright ban, en-

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124. See supra notes 28-49 and accompanying text (discussing lack of consensus about environmental impacts).
125. See supra notes 119-121 and accompanying text (discussing Latin and Menell).
126. If consumers make purchases inconsistent with regulatory policy, the business entity faces inconsistent incentives. Consumers may desire paper containers while regulatory policy may favor plastic.
127. The California statute, entitled Environmental Representations Relating to Consumer Goods and adopting uniform definitions of environmental terms, has been challenged on First Amendment grounds. Association of Nat'l Advertisers, Inc. v. Lungren, 809 F. Supp. 747 (N.D. Cal. 1992). Judge Patel of the Northern District of California found that the statute was an acceptable restriction on commercial speech. Id. at 759. The statutory definition of “recyclable,” however, was found unconstitutionally vague because there was no guidance concerning when a consumer good could be “conveniently recycled.” Id. at 761-62.

In the course of the opinion, the court made it very clear that categorical bans of green claims would be constitutionally infirm, declaring: If First Amendment scrutiny in the commercial speech arena is to have any bite at all, a legislative body cannot justify its restrictions on commercial speech simply by declaring that marketing claims are mislead-
environmental advertising provides several benefits. For example, consumers maximize welfare when they can purchase products having preferred attributes.\(^{128}\) Even when the preferred attribute contradicts regulatory goals, the individual consumer still benefits from purchasing that attribute.\(^{129}\) In addition, the intrinsic benefits from the free flow of ideas exist even when those ideas come from advertising.\(^{130}\) Although consumers may not cause manufacturers to internalize the social costs of pollution, the information conveyed by advertising may foster discussion and may even promote grassroots environmentalism.\(^{131}\) Critics...
counter that the lack of uniformity in definitions will cause consumers to become cynical and stop participating in the environmental movement.132 Once again, these critics would prefer to have consumer participation based on deception and manipulation rather than trust consumers to recognize and account for the inevitable environmental tradeoffs. For grassroots environmentalism to develop and have a positive effect, however, it should be based upon truth, and truth is not promoted by providing uniform definitions when there is no consensus concerning the underlying policy.

III. THE ECONOMICS OF GREEN MARKETING: CONSUMER CONFUSION IS RATIONAL

A. THE ECONOMICS OF INFORMATION: BASIC PRINCIPLES

The Economics of Information ("EOI") is a useful paradigm for analyzing advertising's role in the marketplace.133 Information, like any economic good, has a price that reflects the preferences and costs of providing it. EOI recognizes that information is costly to produce, disseminate, and process.134 At some point, therefore, providing additional information no longer becomes socially desirable.135
To make purchasing decisions conform to their preferences, consumers will seek information concerning product attributes. Consumers may obtain such information by gathering information themselves from inspection, observation, and experience; purchasing information from intermediaries such as journalists or other media sources; receiving information through advertising or third party certifications; from competing sellers; or by benefiting from information gathering activities of others through recommendations, reputation, and other market signals. Economists refer to this process of gathering information as "search."

Advertising plays a vital role in this process because it may reduce costs of the search. For certain types of information, including information concerning environmental impacts of products, sellers possess a comparative advantage in producing and providing that information. Consumer utility increases when the seller provides such information, and advertising is often the most efficient mechanism for disseminating this information.

Sellers will provide information, through advertising or some other source, only when it is cost-effective to do so. Accordingly, a seller's decision to supply information responds to the buyer's demand for such information to assist in choosing.

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136. In other words, the demand for information is derived from the demand for product attributes. Lester G. Telser, Towards a Theory of the Economics of Advertising, in Issues in Advertising: The Economics of Persuasion, supra note 128, at 71 (arguing that advertising is a joint product together with the goods or services); Howard Beales et al., The Efficient Regulation of Consumer Information, 3 J.L. & Econ. 491, 501 (1981). The classic statement on the economics of information is Stigler, supra note 128. Stigler assumes price is the only relevant product attribute.

137. Beales et al., supra note 136, at 501; see also infra notes 267-273 and accompanying text (discussing market signals).

138. Search costs are emphasized in Stigler, supra note 128.

139. The role of advertising as a source of information is discussed in Nelson, Advertising as Information, supra note 128; Nelson, Information and Consumer Behavior, supra note 128; Telser, supra note 136.


141. Winter, supra note 135, at 19.

among competing products. Consequently, the amount of information advertising supplies will depend on a number of factors: the availability of information provided through other sources; the behavior of competitors; the market conditions for the product; and the relative costs of generating and disseminating the information. In a well functioning market, sellers have an incentive to provide information concerning a specific product attribute when consumers prefer products with that attribute.

The recognition that there exists a market for information has very important policy implications. Because providing information involves a cost, "perfect" or complete information is neither attainable nor desirable. To maximize expected utility, consumers will search until the marginal expected cost of the search equals the marginal expected return, i.e., only to the point where the search remains cost effective. Similarly, a seller will continue to advertise so long as the profit from higher sales produced by such advertising offsets the cost of that advertising. The market-clearing level of information is a function of supply and demand. Because consumers and sellers will operate with incomplete information, uncertainty concerning the meaning of advertising claims and some consumer fraud will persist.

To isolate the types of product attributes likely to involve high search costs, economists divide product attributes into three categories: search qualities, experience qualities, and credence qualities. Consumers determine "search" qualities before making a purchase, but can evaluate "experience" qualities only through normal use of the product. The third type, "credence" qualities, require "additional costly information" be-

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143. Porter, supra note 142, at 92; see also supra note 136 and accompanying text (discussing the consumer's search for product information).

144. Porter, supra note 142, at 92. Porter emphasizes that the availability of alternative sources of information influences the "buyer's information equilibrium," which in turn affects the firm's marketing strategy. Id.

145. See infra notes 165-241 and accompanying text (discussing environmental advertising).

146. See sources cited at supra note 142 (discussing cost of information).

147. This is the entire basis of the "search" model. See infra notes 148-152 and accompanying text (discussing consumer assessment of categories of product attributes).

148. See infra notes 149-152 and accompanying text (defining "search," "experience," and "credence" qualities).

149. The division between "search" and "experience" qualities is emphasized in a series of articles by Phillip Nelson. See Phillip Nelson, Advertising as Information Once More, in ISSUES IN ADVERTISING: THE ECONOMICS OF PERSUASION, supra note 128, at 133; Nelson, Advertising as Information, supra note
cause they "cannot be evaluated in normal use."\textsuperscript{150} A credence quality arises "whenever a good is utilized in combination with other goods of uncertain properties."\textsuperscript{151} In this context, environmental benefits are therefore a joint product along with other product attributes.\textsuperscript{152}

Sellers generally do not use false or misleading advertising to affect consumers' perceptions of search qualities because "[i]f the advertised properties of the product differ from the actual properties, the consumer will know about that difference prior to purchase."\textsuperscript{153} With respect to experience qualities, "[t]he major control that consumers have over the market . . . is whether they repeat the purchase of a brand or not."\textsuperscript{154} When sellers depend on repeat purchases, or when experience information is available from non-advertising sources, misleading advertising is not likely. Assessing a credence quality, however, requires additional costly information. Consumer ignorance and the cost of obtaining information from non-seller sources may provide sellers with an incentive to defraud consumers concerning credence qualities.\textsuperscript{155}

The relatively higher cost of evaluating environmental information has led many commentators to conclude that environmental attributes are credence qualities.\textsuperscript{156} These commentators contend that regulation of environmental claims has become necessary to correct market failure in disseminating accurate environmental information. Many environmental attributes, however, are not credence qualities, but search qualities. For example, one brand's use of less packaging than a competi-

\textsuperscript{128, passim; Nelson, Information and Consumer Behavior, supra note 128, passim.}

\textsuperscript{150. "Credence" qualities are discussed in Michael R. Darby & Edi Karni, \textit{Free Competition and the Optimal Amount of Fraud}, 16 \textit{J.L. \\& Econ.} 67, 69 (1973). One commentator argues that credence qualities should be divided into "credence performance claims" and "faith claims." Ross D. Petty, \textit{The Impact of Advertising Law on Business and Public Policy} 36-38 (1992). Under this scheme, environmental claims would probably be considered "faith" claims because they do not directly relate to product performance. \textit{Id.} For our purposes, this additional distinction is not particularly revealing. For all credence claims additional information is necessary. As the rest of this Article demonstrates, such information is available.}

\textsuperscript{151. Darby \\& Karni, \textit{supra} note 150, at 69.}

\textsuperscript{152. See \textit{id}.}

\textsuperscript{153. Nelson, \textit{Advertising as Information}, supra note 128, at 730.}

\textsuperscript{154. \textit{Id}.}

\textsuperscript{155. Darby \\& Karni, \textit{supra} note 150, at 69-72.}

\textsuperscript{156. See, e.g., Petty, \textit{supra} note 150, at 37-38 (defining "faith credence qualities" as including claims concerning public policy issues); Gray-Lee et al., \textit{supra} note 128, at 155.}
tive brand is an observable attribute. In communities that have curbside recycling programs, the “acceptable materials” list provides valuable information. Alternative sources of information that decrease the risk of misleading advertising claims, such as independent certifications\(^{157}\) and market signals,\(^{158}\) have also become readily available.

In addition, the cost of obtaining environmental information is not as high as these commentators suggest. A great deal of relevant information exists through non-advertising media sources. For instance, when the evening news reported that alar on apples creates a health risk, consumers responded to that information.\(^{159}\) In the market for environmental information, publishers,\(^{160}\) broadcast news,\(^{161}\) and other sources

\(157\). See infra notes 242-266 and accompanying text (discussing independent certifications).

\(158\). See infra notes 267-281 and accompanying text (discussing market signals).


devoted to environmental issues\textsuperscript{162} provide a great deal of information.

Consumer uncertainty becomes a problem, of course, when consumers make faulty purchasing decisions based upon the existing information.\textsuperscript{163} As the next section reveals, consumers recognize the risk of fraud and discount the message accordingly. Given the great deal of scientific uncertainty surrounding the environmental impact of products, discounting or ignoring many of those claims may be appropriate; if the environmental impact of "paper v. plastic" is unclear, then perhaps consumers should purchase the product displaying other desirable attributes. Moreover, consumers will ignore environmental claims when the cost of evaluating such claims is prohibitive.\textsuperscript{164}

B. THE ECONOMICS OF ENVIRONMENTAL INFORMATION: ENVIRONMENTAL ADVERTISING FOR FUN AND PROFIT

EOI predicts that when consumers consider environmental attributes and demand more environmental information, sellers react by advertising the environmental benefits of their products.\textsuperscript{165} In addition, the EOI search model predicts that uncer-

\textsuperscript{161.} Several television programs have introduced "green market" reports as part of their news reporting. See, e.g., \textit{Earth Matters: Scared Green} (CNN television broadcast, Aug. 29, 1993) (describing increasing popularity of children's books with environmental themes); \textit{Business World} (ABC television broadcast, Sept. 1, 1991) (describing earnings increases and public relations benefits when fiber manufacturer began making recycled paper products); \textit{Adam Smith} (PBS television broadcast, Apr. 12, 1991) (reporting on increasing use of environmental claims in marketing and advertising); \textit{World News Tonight With Peter Jennings} (ABC television broadcast, Apr. 12, 1990) (describing U.S. canned tuna industry's decision not to purchase tuna from fishing operations using nets that kill dolphins); \textit{World News Tonight with Peter Jennings} (ABC television broadcast, Mar. 29, 1990) (describing trash bag manufacturer's decision to cease erroneous claims that product was biodegradable).


\textsuperscript{163.} If additional information could be made available more cheaply, then consumer purchases would more accurately reflect their preferences. However, none of the current proposals accomplishes this task. Indeed, increased regulation will increase the cost of advertising and restrict the flow of information. See \textit{infra} notes 464-465 and accompanying text.

\textsuperscript{164.} See \textit{supra} notes 133-135 (discussing impracticality of obtaining perfect information).

\textsuperscript{165.} See \textit{supra} notes 136-145 and accompanying text (discussing market effects of consumer search for information). One survey conducted by Marketing Intelligence Service revealed that in 1993, "13.0\% of all new product intros had
tainty and mistrust should be highest where the cost of obtaining information to evaluate the claim is highest. Although the data are far from complete, survey evidence reveals that the green market is consistent with EOI.

Strong consumer preference for environmental attributes encourages an increasing number of companies to advertise the environmental benefits of their products. The percentage of new products marketed in the United States with packages, labels, or advertising containing environmental claims increased from 5.9% in 1989 to 11.4% in the first half of 1992. Many manufacturers that have produced environmentally sensitive products or packaging for years have begun to tout these attributes. Some reports estimate that the green market generates between twenty-five billion and fifty billion dollars a year in sales. Minnesota Attorney General Hubert H. Humphrey, III has characterized the growth in environmental claims as a "green revolution."

Environmental claims generally fall into discrete categories and many terms recur frequently. Many consumers do not

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170. See Evaluation of Environmental Marketing Terms, supra note 13, at 29-70. The EPA searched the Productscan database (owned by Marketing Intelligence Service, Ltd. of Naples, N.Y.) for some of the common environmental terms. Id. at 30. Productscan contains reports of 6000 new products, as well as products that have been substantially changed, repackaged, or relabeled. Id. The search involved 56 terms that were organized into 10 claim types. Id. at
understand the meaning of certain green marketing terms, in spite of their frequent use. Consumers, producers, environmental groups, and other experts have not provided concrete definitions of terms such as “degradable” (including photo-degradable and bio-degradable), “compostable,” “recyclable,” “recycled,” “reusable/refillable,” and “ozone friendly.” Similarly, terms such as “environmentally friendly,” “environmentally safe,” “natural,” and “green” have also created a great deal of confusion. The rest of this subsection summarizes statistics of frequently used environmental claims and discusses the confusion they can create. 171

1. Solid Waste Related Claims

Claims such as “recycled,” “recyclable,” and “degradable” relate to consumer efforts to reduce or eliminate the volume of solid waste. 172 In 1990 and 1991, solid waste related claims accounted for forty percent and forty-five percent of environmental claims made for new products, respectively. 173 Although these terms relate to solid waste, their meanings are ambiguous.

31. The results reported in the text are based on searches using all search terms. Id. at 33. I have highlighted a non-random sample. In addition, I have taken some literary license in characterizing the terms as a certain “claim-type.” These changes will be highlighted when relevant. The EPA warns that there are shortcomings in the Productscan database, however. For instance, the database did not measure environmental claims until 1987. Id. at 31. Some terms, such as “recycled,” “recyclable,” “biodegradable,” and “no pesticides” were not added until 1990. Id. at 31-32. As a result, the increase in frequency of environmental claims attributable to Earth Day 1990 may be overstated. Finally, some types of products were excluded, such as books (which may claim use of recycled paper), gasoline (“reformulated” claims), and durable goods (such as “energy efficient” refrigerators). Id. at 31. Despite these limitations, the EPA claims that the Productscan database is the “best single source for systematically measuring environmental marketing claims in the packaged goods market.” Id. at 34.

171. At least one source of confusion is not discussed in this section. Consumers may be confused about whether a claim applies to a product or its packaging. The FTC recommends that an environmental claim “should be presented in a way that makes clear whether the environmental attribute or benefit being asserted refers to the product, the product’s packaging or to a portion or component of the product or packaging.” Guides for the Use of Environmental Marketing Claims, 16 C.F.R. § 260.66 (1994).

172. Less commonly used solid-waste reduction claims, particularly those involving packages that can be refilled, may be increasing. See The Majors March into Green(ed-Up) Products, Green MarketAlert, Jan. 1992, available in Westlaw, PTS-Prompt Database.

173. Evaluation of Environmental Marketing Terms, supra note 13, at 35.
a. Recyclable

The EPA defines a recyclable product as one that "can be recovered from or otherwise diverted from the solid waste stream for the purpose of recycling."174 Although some state regulations and enforcement activities175 have prompted marketers to remove this claim from their products,176 "recyclable" claims were the fastest growing type of environmental claim from 1990 to 1991.177 Most of these claims related to the packaging rather than the product itself.178

Surveys reveal that consumers have a relatively good understanding of the meaning of "recyclable."179 Although consumers may not appreciate the details of the recycling process,180 most consumers recognize that a "recyclable" product or package goes through an additional process, usually at a re-

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174. Guidance for the Use of the Terms "Recycled" and "Recyclable" and the Recycling Emblem in Environmental Marketing Claims, 56 Fed. Reg. 49,992, 49,994 (1991). See also Guides for the Use of Environmental Marketing Claims, 16 C.F.R. § 260.7(d) (1994) (“A product or package should not be marketed as recyclable unless it can be collected, separated or otherwise recovered from the solid waste stream for use in the form of raw materials in the manufacture or assembly of a new package or product.”); Carl Frankel, Review of Corporate Labelling Strategies, GREEN MARKET ALERT, Nov. 1991, (on file with the Minnesota Law Review) (explaining that the National Advertising Review Board of the Better Business Bureau defines recyclable to mean “the product is transformed to another useful purpose, through a process that includes human intervention, and that it is not added to the waste stream once its initial use is completed”).

175. See infra notes 335-354 and accompanying text (discussing state regulation and enforcement activities).

176. EVALUATION OF ENVIRONMENTAL MARKETING TERMS, supra note 13, at 41, 71-102.

177. Id. at 38.

178. Id.

179. See HASTAK ET AL., supra note 13, at 42 (pagination added) (reporting results of Environmental Research Associates survey that 80% of respondents define recyclable as "the ability to convert particular materials into another product"); id. at 9 (citing Brenda J. Cude, Marketing and Advertising Claims: Comments Prepared for the July 1991 FTC Public Hearings on Environmental Marketing and Advertising Claims (Cooperative Extension Service, University of Illinois at Urbana-Champaign, 1991) (noting that in five out of six reported surveys a majority of respondents understand term “recycled”).

180. Id. at 10 (citing Cude, supra note 179, reporting that only eight percent of respondents knew that glass peanut butter jar was recyclable with or without label); id. at 35 (pagination added) (citing Roper Organization survey, reporting that two-thirds of respondents unaware of what happens in recycling programs).
The most prevalent source of confusion associated with the term "recyclable" involves the geographic availability of recycling facilities. Many claims of recyclability pertain only to technical feasibility and do not disclose whether recycling facilities are available in the local geographic region. This leads to consumer confusion because consumers believe claims of "recyclable" (as well as "compostable") mean appropriate facilities are available locally, even if they are not. Because even qualifying phrases such as "recyclable where facilities exist" may lead consumers to believe that such facilities exist locally, both the FTC and EPA recommend a qualifying phrase such as "check to see if recycling facilities exist in your area."

b. Recycled

From 1989 to 1992, "recycled" claims constituted slightly more than ten percent of all environmental claims. According to the EPA, "recycled" means that a product or package is made of pre-consumer or post-consumer materials. The FTC states that a claim of recycled content applies "only for materials that have been recovered or otherwise diverted from the solid waste

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181. Id. at 9 (citing AUS Consultants survey, reporting that 76% of respondents noted that a product labeled "recyclable" will not automatically be recycled if thrown out with other trash).

182. Id. (citing AUS Consultants survey, reporting that 43% of respondents thought a product labeled "recyclable" should be recyclable in "all" or "most" communities); id. at 10 (reporting Good Housekeeping survey, showing that 52% of respondents assumed "recycling" label meant facilities available locally).

183. EVALUATION OF ENVIRONMENTAL MARKETING TERMS, supra note 13, at 38, 41; Selling Green, 56 CONSUMER REP. 687, 688 (1991).

184. A product or package is compostable if it "will break down into, or otherwise become a part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner in an appropriate composting program or facility, or in a home compost pile or device." Guides for the Use of Environmental Marketing Claims, 16 C.F.R. § 260.7(c) (1994).

185. HASTAK ET AL., supra note 13, at 10 (reporting University of Utah study of environmental claims, which found that 52% of respondents would assume facilities exist where claim is made).

186. Guides for the Use of Environmental Marketing Claims, 16 C.F.R. § 260.7(d) (1994); EPA Guidance for the Use of the Terms "Recycled" and "Recyclable" and the Recycling Emblem in Environmental Marketing Claims, 56 Fed. Reg. 49,992, 49,998 (1991) ("[A]n example of a qualified claim could be: 'This bottle can be recycled in communities where collection facilities exist.' ").

187. EVALUATION OF ENVIRONMENTAL MARKETING CLAIMS, supra note 13, at 43.

stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer).” Other definitions created by certain states limit “recycled” to include only post-consumer waste. Most consumers do not consider the proportion of recycled material in a product or package as the important consideration, but instead merely believe that “any recycled content is a positive step.”

Consumers appear to understand the general meaning of “recycled” better than most other green claims. Although most do not understand the distinction between pre-consumer and post-consumer waste, consumers ironically tend to perceive whether a product or package is recycled based on the relative content of pre-consumer and post-consumer waste. For example, commentators argue that consumers may believe that a “recycled” product is made from 100% post-consumer waste. In fact, the product may contain less than 100% recycled material and part of that material may be pre-consumer waste.

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190. See, e.g., Cal. Bus. & Prof. Code § 17,508.5(e) (West 1994) (defining “recycled” as “containing at least 10 percent by weight, post-consumer material”); Green Report II, supra note 4, at 8 (recommending that “only post-consumer materials be referred to as ‘recycled’ materials”).
191. Evaluation of Environmental Marketing Terms, supra note 13, at 18.
192. Id. at 17 (reporting 75% of respondents correctly defined the general term “recycled,” while only 38% correctly defined “recycled plastic”); see also Hastak et al., supra note 13, at 11 (citing George Washington University survey, reporting 81% of respondents able to match term “recycled” to its definition).
194. Hastak et al., supra note 13, at 45 (summarizing a survey conducted by AUS Consultants).
197. Selling Green, supra note 183, at 688-89 (pointing out the dispute over whether “recycled” labels should be restricted to products containing only post-consumer waste); Terri Shaw, The Selling of “Green”, Wash. Post, Feb. 28, 1991, at T9, T10.
definitions and the FTC and EPA to suggest that sellers disclose the percentage of recycled content on the label.

c. Degradable

"Degradable" means a substance will break down under certain conditions. "Biodegradable" means that a substance decomposes by micro-organisms, while "photodegradable" means that a product degrades when exposed to sunlight. Claims of degradability occurred with just slightly less frequency than "recyclable," making degradability one of the most widely used claims.

Consumers appear to understand the term "degradable" better than many terms, but appear confused about the degradation process. Some confusion concerning the degradation process is understandable. Although technically everything will eventually degrade, the problem arises in determining how quickly and how much a product must degrade to use a label marked "degradable." Consumer products usually end up in landfills, where even items that normally break down rather

198. See infra notes 399-410 and accompanying text (discussing state definitional statutes).
202. SPI Overview, supra note 201, at 9; Facing America's Trash, supra note 36, at 181-82.
203. Evaluation of Environmental Marketing Terms, supra note 13, at 41. After a sharp increase, the percentage of new claims has remained relatively constant. Id.
204. Surveys find that approximately 65-70% of respondents correctly provided a general definition of "degradable." Hastak et al., supra note 13, at 30 (pagination added) (citing Cude, supra note 179, reporting that 71% of respondents were able to define degradable); Green and Getting Greener, supra note 17 (reporting on Environmental Research Associates survey result that 70% of respondents able to provide definition).
205. Hastak et al., supra note 13, at 30 (pagination added) (citing Cude, supra note 179).
206. Elkington et al., supra note 26, at 50; Wang, supra note 54, at 98.
easily (such as food and paper) can last for decades.208 Moreover, to achieve degradability, plastic manufacturers often modify the composition of the plastic209 or use additives such as cornstarch210 that allow light or microorganisms to sever the bonds within the material. Although the additives break down, the synthetic plastics do not.211 Degradable plastic thus simply disintegrates into smaller pieces of plastic.212 Consequently, scientists are skeptical about using "degradable" to imply that a product or its packages will actually reduce the solid waste problem.213

2. Ozone-Related Claims

Ozone-related claims, such as "CFC-free" or "ozone-friendly" appeared very rarely, comprising only one percent of all products with environmental claims from 1989 through 1992.214 Ozone-related claims typically imply that the product or package does not contain substances that will destroy the strato-
spheric ozone layer. Only seven percent of respondents in one survey, however, believed that a product without CFCs was less damaging to the ozone layer or the atmosphere than a product with CFCs. Indeed, nearly seventy percent of the respondents did not understand the phrase “No CFCs.” This consumer confusion seems understandable, because ozone-related claims may not involve attributes that are necessarily better for the environment.

Those who oppose the use of ozone-related claims contend that a claim such as “CFC-free” does not meaningfully differentiate products. Apparently these critics fear that consumers will mistakenly believe a product has been altered when it has not. For example, CFCs have been banned in aerosol products since 1978 and banned in most other products more recently. Consequently, a claim that a product is “CFC-free” or “ozone-friendly” may indicate nothing more than a claim that the manufacturer has complied with the law. In addition, these critics believe that sellers may mislead consumers into believing that by replacing the ozone-depleting substance, the product has a positive environmental benefit. Many manufacturers, however, have replaced CFC propellants in aerosol products with butane or propane, which contribute to smog. Because there is no satisfactory method of comparing the social costs of smog to those related to damage of the ozone layer, the

215. FTC Green Marketing Action, Green MarketAlert, July 1993, available in Westlaw, PTS-Prompt Database (product containing ozone-depleting chemicals was labeled as “environmentally friendly” and containing “no CFC's”); Elkington et al., supra note 26, at 224.

216. Hastak et al., supra note 13 (citing Cude, supra note 179).

217. Id.

218. See Hearings on Environmental Marketing Issues Before the Federal Trade Commission 45-46 (1991) (testimony of Michael Alcamo, New York City Department of Consumer Affairs, noting that environmentally harmful products may claim to have no CFCs, which misleads consumers).

219. Fierman, supra note 29, at 96.


221. Claims that a product is ozone-friendly when, in fact, it contains ozone-depleting chemicals have been found deceptive. See infra notes 323-326 and accompanying text (discussing Zipatone).

net environmental impact of replacing ozone-depleting substances remains unclear.223

c. General Environmental Claims

Claims such as “environmentally safe,” “environmentally friendly,” or “green” are virtually devoid of content. Every product has some deleterious environmental impact arising from either the resources used in its manufacture or its transportation to market.224 Because these terms have no independent meaning, the FTC225 and a Task Force of State Attorneys General226 have recommended that sellers avoid using broad environmental claims or at least qualify these terms to specifically explain the environmental benefits of the product. The use of general environmental claims increased more than five-fold from 1989 to 1990 and then declined slightly until the first half of 1992.227 Not surprisingly, fewer than half of consumers surveyed could provide an acceptable definition of “environmentally friendly” or “environmentally safe,”228 and many questioned the validity of such claims.229

The preceding discussion illustrates existing consumer uncertainty about the meaning of terms commonly used in environmental advertising. This uncertainty has led to consumer mistrust of certain green claims. Surveys find that from forty-two percent to fifty-six percent of consumers dismiss environmental claims as “mere gimmickry” or believe that brands advertised as environmentally benign are no better for the environment.230 One survey reveals that some environmental

223. “Life-cycle” analysis presents one option of making such comparisons. However, the life-cycle analysis is unsatisfactory because, in part, it is laden with value judgments. See supra notes 50-105 and accompanying text.
224. See supra note 1.
225. 16 C.F.R. § 260.7 (1994).
226. GREEN REPORT II, supra note 4.
227. EVALUATION OF ENVIRONMENTAL MARKETING TERMS, supra note 13, at 43.
228. HASTAK ET AL., supra note 13 (reporting on Environmental Research Associates survey indicating that 48% of survey respondents knew “environmentally friendly” was something that did not harm environment); id. (citing CUBE, supra note 179).
229. EVALUATION OF ENVIRONMENTAL MARKETING TERMS, supra note 13, at 22 (citing a spring 1991 survey by Angus Reid Group, Golin Harris Communications and Environomics); Judann Dagnoli, Consciously Green, ADVERTISING AGE, Sept. 16, 1991, at 14.
230. Chase & Smith, supra note 14, at S-2, S-4 (52% of respondents paying little attention to environmental labels). Claims that a product or package is “recycled” may create uncertainty for consumers. Dagnoli, supra note 29, at 91
labels instill more confidence than others. Claims of "recyclable" and "recycled" generated the most confidence.\textsuperscript{231} In contrast, nearly half of the respondents were confused by "environmentally friendly."\textsuperscript{232} Some anecdotal evidence further indicates that consumers may reduce their purchases of environmentally benign products due to their confusion or skepticism.\textsuperscript{233} This evidence notwithstanding, many market analysts predict that environmentally-related products will continue to perform well.\textsuperscript{234}

Furthermore, consumer mistrust and doubt are higher when the claim conveys less useful information.\textsuperscript{235} Consumer understanding is highest for terms such as "recycled" and "recyclable," where the major source of deception appears to surround only the percentage of recycled content and the market availability of recycling facilities.\textsuperscript{236} For these two terms, the FTC Guidelines appear to effectively address consumer confusion by encouraging that claims state the percentage of recycled material and contain disclaimers concerning the availability of recycling facilities.\textsuperscript{237} Moreover, as consumers become more sophisticated, they will better understand technical information. In contrast, consumers do not seem to trust or understand claims such as "environmentally friendly" or "CFC Free."\textsuperscript{238} Consumers appropriately prefer specific information to broad claims. Consumer uncertainty concerning ozone-related claims, for example, perfectly correlates with the scientific uncertainty concerning the environmental benefits of ozone-related claims

\textsuperscript{231} Fierman, \textit{supra} note 29, at 91 (47% dismiss environmental claims as "mere gimmickry"); \textsc{Hasilik et al.}, \textit{supra} note 13, at 10 (quoting a University of Utah study of environmental claims: "Almost half (49%) agreed that brands with environmental claims were no better for the environment than other brands.").

\textsuperscript{232} \textit{Id.} at 9.

\textsuperscript{233} \textit{See Evaluation of Environmental Marketing Terms, supra} note 13, at v.

\textsuperscript{234} \textit{Id.; see also} Chase & Smith, \textit{supra} note 14, at S-2, S-4 ("Concern for the environment is moving at glacierlike speed into the mainstream, which means less noise about it but greater impact on buying decisions.").

\textsuperscript{235} \textit{See supra} notes 228-234 and accompanying text (discussing consumer reactions to general environmental claims).

\textsuperscript{236} \textit{See supra} notes 182-186, 192-197 and accompanying text (discussing consumer confusion about recycled and recyclable products).

\textsuperscript{237} Guides for the Use of Environmental Marketing Claims, 16 C.F.R. § 260 (1994).

\textsuperscript{238} \textit{See supra} notes 224-230 and accompanying text (discussing general environmental claims).
and the increased cost of processing the technical information associated with ozone-related claims.\footnote{239. See supra notes 214-223 and accompanying text (discussing scientific uncertainty about ozone-related claims).}

According to the EOI model, consumer mistrust and uncertainty does not necessarily reveal a poorly functioning market for information. Indeed, mistrust motivates consumer search and sophistication, elements necessary for an efficient market.\footnote{240. See supra notes 138-141 and accompanying text (discussing consumer search).} Because government regulation can not eliminate deceptive advertising entirely, some level of deception and consumer doubt remains inevitable. Moreover, scientific uncertainty concerning the environmental impact of consumer products will necessarily translate into consumer decision making.\footnote{241. J. Howard Beales & Timothy J. Muris, State and Federal Regulation of National Advertising (1993).} If experts and legislators cannot reach a consensus concerning "appropriate" environmental attributes, then we should expect uncertainty in the consumer market as well.

C. THE ECONOMICS OF ENVIRONMENTAL INFORMATION: THIRD PARTY EVALUATIONS

Consumer mistrust creates a serious problem for advertisers. A legitimate, truthful advertiser must convey that its environmental claim is true. Consumers may believe the truth of a green claim because of the seller's reputation for honesty, or market forces may operate to assure honest advertising by the seller.\footnote{242. Some of these market forces are discussed in the next subsection. See infra part III.D. See also Posner, supra note 134, at 4-7; Benjamin Klein & Keith B. Leffler, The Role of Market Forces in Assuring Contractual Performance, 89 J. Pol. Econ. 615 (1981).} In many cases, however, sufficiently guaranteeing the truthfulness of an environmental claim may require additional information, and hence cost more.

When consumers doubt a seller's claim,\footnote{243. See supra notes 146-148 and accompanying text (discussing high cost of search causing consumer uncertainty).} a third-party evaluation or certification may correct the high cost of guaranteeing truthfulness in the market of information.\footnote{244. The market for third party evaluations is analyzed in Thomas L. Eovaldi, The Market for Consumer Product Evaluations: An Analysis and a Proposal, 79 Nw. U. L. Rev. 1235 (1985). The theoretical analysis in this section relies heavily on Professor Eovaldi's analysis.} Third-party evaluations may have significant advantages over consumer
search and seller provision of information. Third parties can spread the cost of producing evaluations among large numbers of consumers, thereby lowering their cost to individual purchasers. In addition, large scale testing organizations can take advantage of returns to scale in the cost of testing.245 Most importantly, third-party evaluators “have little incentive to distort the facts or steer the consumer to a particular product.”246 In essence, the seller relies upon the reputation of the third-party evaluator to convey the veracity of its claim.

EOI would predict that appropriate markets should contain successful third-party evaluation schemes and, in fact, several such schemes exist to evaluate product qualities.247 For example, Consumers Union performs a variety of safety and product quality tests on a range of consumer products and publishes the results in its monthly magazine Consumer Reports.248 Under-

245. Id.; see also Beales et al., supra note 136, at 505, 515 (discussing “expert” provision of information).

246. Howard Beales et al., Consumer Search and Public Policy, 8 J. CONSUMER RES. 11, 16 (1981).

247. Not all of the third-party certification schemes have been successful. In 1989, the American Heart Association (“AHA”) unveiled plans to begin a Heartguide seal for foods comparatively low in fats, cholesterol, and sodium. Marian Burros, Eating Well, N.Y. TIMES, Oct. 25, 1989, at C4. A primary concern with the Heartguide seal was that it could be attached to products that were comparatively healthy, but still promoted heart disease. See Mark Bloom, The Flap Over Food Labelling: FDA Puts Heart Association's Seal of Approval in Jeopardy, WASH. POST, Aug. 30, 1989, at E1. Trade associations and public interest groups objected to the label's cost, possibly prohibitive for small companies, and to the AHA's refusal to disclose its evaluation criteria. Carole Sugarman, What's the Price of Approval? Companies Hesitate Over Cost of HeartGuide Seal, WASH. POST, Aug. 30, 1989, at E1. Eventually, the AHA succumbed to concerted pressure from the FDA and other groups and terminated the project. Natalie Angier, Heart Association Cancels its Program to Rate Foods, N.Y. TIMES, Apr. 3, 1990, at A1; Janet Meyers, HeartGuide Legacy: FDA May Shoot Down Other Seal Programs, ADVERTISING AGE, May 2, 1990, at 60.

248. Consumer Reports ranks as the single most important source of information about product quality. See David J. Currey, Measuring Price and Quality Competition Among Conglomerates: Methodology and an Application to the Major Appliance Industry, 10 ADVANCES CONSUMER RES. 400, 401 (1983) (citing a survey of 1247 households, conducted by National Family Opinion, Inc); Ross D. Petty, Advertising and the First Amendment: A Practical Test for Distinguishing Commercial Speech from Fully Protected Speech, 12 J. PUB. POL'Y & MARKETING 170, 175 (1993) (noting that consumers may be influenced to purchase products that are rated by Consumer Reports rather than those that are not); Robert DeMaris, Al Ries and Jack Trout's Positioning: The Battle for Your Mind, 56 J. MARKETING 122 (1992) (book review) (“Consumers often read Consumer Reports and perceive themselves as experts.”); see also NORMAN I. SILBER, TEST AND PROTEST: THE INFLUENCE OF CONSUMERS UNION (1983) (discussing Consumers Union’s influence on consumers). But see E. Scott Maynes, Salute and Critique: Remarks on Ratchford and Gupta's Analysis of Price-
writers Laboratories, organized by the insurance industry, now provides the universally accepted safety certification for electrical products.\textsuperscript{249} Both the American Medical Association\textsuperscript{250} and the American Dental Association\textsuperscript{251} approve various consumer products such as over-the-counter medical and dental products.

Seller advertising of a third-party seal of approval or certification strongly influences consumer perception of a firm's trustworthiness because consumers find messages accompanied by third-party evaluations more trustworthy.\textsuperscript{252} In the green market, third-party evaluations would increase consumer confidence concerning a seller's environmental claims.\textsuperscript{253} Not surprisingly, two private environmental certification systems have emerged in this country.\textsuperscript{254}

Green Seal is a non-profit organization that has the financial support of several major environmental groups, including

\begin{footnotes}
\footnotetext{250. Priscilla A. LaBarbera, Overcoming a No-Reputation Liability Through Documentation and Advertising Regulation, 19 J. Marketing Res. 223, 227 (1982) (noting that consumers responded favorably to AMA approval of bandages).}
\footnotetext{251. David B. Montgomery \& Scott Armstrong, Brand Trial After a Credibility Change, 10 J. Advertising Res., Oct. 1970, at 26 (noting that ADA approval increased the market share of Crest toothpaste from 12\% to 35\%).}
\footnotetext{252. Thomas L. Parkinson, The Role of Seals and Certifications of Approval in Consumer Decision-Making, 9 J. Consumer Aff. 1, 7-10 (1975); see also supra notes 248-251 and the studies cited therein. For studies questioning the impact of seals of approval, see Richard F. Beltramini \& Edwin R. Stafford, Comprehension and Perceived Believability of Seals of Approval Information in Advertising, 22 J. Advertising 3 (1993).}
\footnotetext{253. \textit{Hastak et al.}, supra note 13, at 56 (pagination added) (citing J. Walter Thompson, JWT Greenwatch (Spring/Summer 1991)); Gray-Lee et al., supra note 128, at 158-59; Steve Lustgarden, Organics Take Root, \textit{Vegetarian Times}, June 1993, at 72. ("Once there's clarity about what the standards are and everybody has to abide by certification procedures, it will boost consumer confidence in product quality . . . . ").}
\footnotetext{254. Two articles focus on the legal and market implications of these private green certifiers. \textit{Grodsky}, supra note 10; \textit{O'Reilly}, supra note 10.}
\end{footnotes}
the Environmental Defense Fund. Green Seal has contracted with Underwriters Laboratories to test a product's environmental attributes. Green Seal does not simply verify an advertiser's environmental claims; rather, it awards a seal to products that meet threshold standards for multiple attributes.

Scientific Certification Systems, Inc., formerly Green Cross, initiated an environmental labeling program in 1989. Scientific Certification provides two levels of certification. The first level checks the accuracy of specific environmental claims made by manufacturers. The second level, a modified life-cycle inventory analysis, provides data comparing the environmental impact of the product to that of its competitors at various stages in the product's life. Scientific Certification reports its results in a bar chart that it calls an "Environmental Report Card."

Scientific Certification and Green Seal actively compete against each other. The Environmental Defense Fund has charged that manufacturers use the Scientific Certification label in "a manner likely to mislead or confuse consumers." The president of Scientific Certification countered that these charges merely attempted to eliminate Green Seal's competition, noting that two members of Green Seal's board of directors occupied influential positions in the Environmental Defense Fund. Commentators disagree concerning the effect of this certification competition. One commentator suggests that competitive pressures in the marketplace could prompt the certifiers to relax

260. *Id.*
261. *Id.* at 2.
262. *See id.*
264. *Id.* at 209 (citing GREEN CROSS CERTIFICATION CO., REVIEW OF THE GREEN CROSS CERTIFICATION PROGRAM (1991)).
standards to attract business. Conversely, another author argues that "competition is very much desired" because such competition will force the certifier to respond to its clients' needs at the lowest cost.

With Scientific Certification and Green Seal, "competition" may merely indicate market segmentation. Each certification scheme has its own particular advantages. For example, for consumers who defer to environmental groups' judgment concerning environmental policy, a statement from Green Seal will provide important information. In fact, the mere existence of the seal on the product conveys useful information, because it indicates that the product has been reviewed. For other consumers who do not defer to the judgment of environmental activists, or who even distrust environmental organizations, the additional information conveyed by Scientific Certification's Environmental Report Card may promote a more informed choice.

This is not to say that the two organizations will continue to coexist. On the one hand, consumers may never understand the tradeoffs implicit in Scientific Certification's Environmental Report Card. On the other hand, the simple seal may not provide sufficient information to make Green Seal viable. Ultimately, whether either or both of these certification schemes survives depends on decisions made in the market for environmental information. The market will also provide other sources of information. These market forces are discussed in the next section.

D. THE ECONOMICS OF ENVIRONMENTAL INFORMATION: MARKET SIGNALS

Many commentators argue that consumer uncertainty will prevent the market for environmentally benign products from functioning efficiently. This analysis, however, focuses solely on the behavior of individual consumers rather than the market as a whole; accordingly, if any consumer is uncertain, the market has failed. Looking more broadly at the market, instead of individual consumers, indicates that several factors will protect uninformed consumers and create an incentive for sellers to provide truthful green claims.

265. Id. at 209-13.
266. O'Reilly, supra note 10, at 203.
267. See supra note 12 (explaining efficient market).
268. Alan Schwartz & Louis L. Wilde, Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis, 27 U. Pa. L. Rev. 630, 635 (1979) (stating that the conventional approach "incorrectly focuses on individuals rather than on the markets in which they purchase.").
EOI suggests that a company’s reputation for truthfulness allows consumers to evaluate efficiently that company’s green claims. Indeed, consumers find green claims of some companies more reliable than the same claims made by others because of the company’s reputation for truthfulness. High levels of advertising thus reliably signal to consumers that the product displays the desired attribute, and therefore the mere presence of advertising is a useful market signal. Recognizing the importance of their reputational asset, firms invest heavily in advertising to create and preserve their environmental reputations.

National environmental groups have, on occasion, sold their reputation to corporations that are attempting to make their corporate images more “green.” For example, to defuse controversy concerning its polystyrene packaging, McDonald’s began working with the Environmental Defense Fund (“EDF”) in the


270. Caren Arnstein, How Companies Can Rebuild Credibility and Public Trust, PUB. REL. J., Apr. 1994, at 28 (discussing the plight of three companies trying to overcome difficult environmental situations); Environmentalism a "Religion," Says Lindheim, PR SERVICES, Feb. 1993, at 20 (stating that consumer trust of petrochemical companies has declined over the past decade); C.J. Silas, The Environmental: Playing to Win, PUB. REL. J., Jan. 1990, at 10 (“[T]he American people [do not] trust industry to be responsible with our country’s air, water, and land.”).

271. Firms that expend resources to enhance their reputation have more to lose if they are caught cheating. In other words, there is a positive relationship between “advertising intensity and the extent of quality that is costly to determine prepurchase.” Klein & Leffler, supra note 242, at 631.


273. Paul Abrahams, Clouds of Suspicion - Chemicals Must Fight to Clear Their Name, FINANCIAL TIMES, Nov. 10, 1992, at IV (stating that the chemical industry is trying to improve its image by encouraging individual companies to clean up their environmental performance); Frank Buckingham, Spray Patterns Are Changing, IMPLEMENT & TRACTOR, Feb. 1989, at 23 (“The Alliance for a Clean Rural Environment (ACRE) is another effort of the chemical industry to improve its image . . . .”); Kevin Maney, More Firms Go Green, U.S.A TODAY, Mar. 21, 1991, at 1B (reporting that U.S. Sprint and other companies attempted to spruce up their environmental image); Profiles of Top Environmental PR Firms, PR SERVICES, Feb. 1994, at 30 (stating that environmental PR firms help corporate America clean up its environmental image); Peter Stisser, A Deeper Shade of Green, AM. DEMOGRAPHICS, Mar. 1994, at 24 (“Making a substantial long-term commitment to the environment can dramatically improve the public’s attitudes toward your business.”); Amy Wallace, Dolphin-Safe Tuna Fishing is Aim of Bumble Bee Study, L.A. TIMES, May 2, 1991, at D1 (stating that encouraging dolphin-safe tuna fishing could improve the tarnished reputation of the industry).
summer of 1990 to improve its environmental reputation. As a result, McDonald's announced plans to abandon the polystyrene clam shell in November 1990, and switch to plastic-coated-paper "quilt wrap" for sandwiches and plastic-film-coated cardboard for hot beverages. Although the plan initially received negative publicity, the arrangement allows McDonald's to profit from its environmental investment. Because the EDF will undoubtedly take a great deal of care in selling its "approval" to prevent potential damage to its reputation, consumers can be assured that McDonald's has taken significant strides to "green" its corporate behavior.

Another important factor ensuring truthful advertising claims is that environmental advertising generally exists with products sold in mass consumer transactions. Mass transactions make sellers dependent on repeat purchases. In addition, sellers have an additional incentive to provide truthful information to the marketplace because they cannot conveniently learn the characteristics of individual consumers.

A well functioning market will emerge when a critical mass of sophisticated consumers develops to force the firm, through its purchasing decisions, to supply products with desired environmental attributes and make truthful green claims about their products. Continued consumer demand and more information concerning the validity of green claims will increase the number of sophisticated consumers, suggesting that the green market will function efficiently. Consumer surveys and sales data reveal that consumers specifically shop for environmental products. Mass media attention increases the amount of information to consumers and facilitates useful comparisons. Moreover, environmental and consumer groups will maintain a watchful eye over environmental claims concerning consumer products.

274. See Phyllis Berman, McDonald's Caves In, Forbes, Feb. 4, 1991, at 73; Hume, supra note 33, at 32; see also supra notes 33-35 and accompanying text (describing the McDonald's move away from polystyrene packaging).
275. Hume, supra note 33, at 32.
276. Id.
277. Nelson, Advertising as Information, supra note 139, at 730.
278. Schwartz & Wilde, supra note 268, at 663-65.
279. "Sophisticated consumers," according to Schwartz and Wilde, are those who engage in a moderate or high level of search. Id. at 637. Sophisticated consumers must obtain sufficient information to evaluate the truthfulness of product claims. Id.
280. See supra notes 13-23 (discussing survey evidence of consumers' preference for green attributes).
Consumer uncertainty in the market for environmental information does not evidence market failure; rather, it is consistent with the notion that information is a costly, i.e., economic, good. In fact, several factors indicate that the market has performed admirably. Sellers, by supplying environmental information about their products through advertising, are responding to consumer demand for environmental attributes. Consumers can now access a number of media sources to educate themselves concerning environmental policy and specific advertising claims made by sellers.\(^{281}\) Market forces create an incentive for the seller to provide truthful information because mass transactions make the seller dependent on repeat purchases. In addition, a critical mass of sophisticated consumers will direct sellers to provide products with desired environmental attributes. If the reliability of a green claim does become suspect, the seller may seek a certification from a third-party, such as Green Seal or Scientific Certification Systems, verifying the claim. These certifiers also independently supply useful information through either Environmental Report Cards or Seals of Approval.

IV. REGULATING GREEN CLAIMS

Environmental advertising regulations have followed a number of different models. Traditionally, regulation in the United States has focused on ensuring that advertising and marketing claims are truthful. Some states and foreign countries, however, have adopted statutes designed to regulate consumer information to accomplish environmental policy goals. These statutes are typically minimum content regulations or complex labelling statutes that govern when, and sometimes how, a seller may advertise environmental attributes. This Part explores these differing regulatory approaches.

A. REGULATION OF DECEPTION

1. Federal Regulation of Green Claims: The Role of the Federal Trade Commission

   Section 5 of the Federal Trade Commission Act ("FTCA")\(^{282}\) gives the Federal Trade Commission ("FTC" or "Commission")

\(^{281}\) This Article and the sources cited herein are examples of the available media sources.

jurisdiction over advertising and labelling.283 Section 5 of the
FTCA prohibits “unfair or deceptive acts or practices in or affect­
ing commerce.”284 The FTC has interpreted section 5 to prevent un­fair,285 deceptive,286 or unsubstantiated287 advertising

283. Congress established the Federal Trade Commission in 1914 to enforce antitrust policy. The original language of the statute prohibited only “unfair methods of competition.” Act of Sept. 26, 1914, ch. 311, § 45(a)(1), 38 Stat. 717, 719 (1914). Although the Commission interpreted this language as preventing untruthful advertising, FTC v. Winsted Hosiery Co., 258 U.S. 483, 493 (1922); Sears, Roebuck & Co. v. FTC, 258 F. 307, 311 (7th Cir. 1919), the courts were reluctant to adopt such an interpretation. FTC v. Rabadam Co., 283 U.S. 643, 649 (1931). However, in 1938, Congress amended § 5 of the FTCA to outlaw “unfair or deceptive acts or practices.” Wheeler-Lea Act, Pub. L. No. 75-447, § 3, 52 Stat. 111 (1938) (codified at 15 U.S.C. § 45(a)(1) (1982)). The amendment expanded the FTC’s authority to include false advertising and business practices. Id. at 114. Thus, the authority of the Commission to take actions to prevent false advertising is no longer in doubt.


The FTC has determined that unfairness exists where a form of advertising creates or takes advantage of obstacles to free consumer choice. Letter from FTC Commissioners to Wendell H. Ford, Chairman, Senate Consumer Subcommittee, and John C. Danforth, Ranking Minority Member, Senate Consumer Subcommittee (Dec. 17, 1980), reprinted in H.R. Rep. No. 156, 98th Cong., 1st Sess., pt. 1, at 37 (1983). The ban on unfair competition prevents anticompetitive behavior, including the withholding of important information, and helps to preserve a variety of marketplace options for consumers. Id. at 37-38.

The definition of “unfairness” has undergone some changes. In 1964, the Commission suggested a three-factor test:

(1) whether the practice, without necessarily having been previously considered unlawful, offends public policy as it has been established by statutes, the common law, or otherwise—whether, in other words, it is within at least the penumbra of some common-law, statutory, or other established concept of unfairness; (2) whether it is immoral, unethical, oppressive, or unscrupulous; (3) whether it causes substantial injury to consumers (or competitors or other businessmen).

claims. Most illegal environmental claims are either deceptive, unsubstantiated, or both.288

Congress chose not to define "deceptive,"289 leaving this task to the FTC and federal courts.290 As a result, the definition of deception has evolved and generated considerable contro-

In 1978, the Commission backed off from its emphasis on the ethical implications of the practice and recharacterized the test as involving two parts:

1. Whether the acts or practices result in substantial harm to consumers. In making this determination both the economic and social benefits and losses flowing from the challenged conduct must be assessed, and
2. Whether the challenged conduct offends public policy.


286. See, e.g., In re Cliffdale Assocs., Inc., 103 F.T.C. 110 (1984); see infra notes 295-296 and accompanying text (citing Cliffdale).


288. Although it is clear that an advertisement or label involving an environmental claim may be "unfair" as that term is defined by the FTC, most enforcement actions focus on the alleged deceptiveness due to the vagueness and misleading nature of the claims. See infra notes 289-334 and accompanying text (discussing cases that deal with claims of deceptive advertising).

289. Although some statutory definitions are provided in the FTCA, 15 U.S.C. § 55 (1988), these definitions do not apply to any action commenced under § 5. See, e.g., Fresh Grown Preserve Corp. v. FTC, 125 F.2d 917 (2d Cir. 1942).

James C. Miller, III, former chairman of the FTC, unsuccessfully lobbied Congress to amend § 5 to include a definition of a "deceptive" trade act. See FTC's Authority over Deceptive Advertising: Hearing Before the Subcomm. for Consumers of the Senate Comm. on Commerce, Science, and Transportation, 97th Cong., 2d Sess. 4-9 (1982).

290. According to the Supreme Court:

[The FTCA] necessarily gives the Commission an influential role in interpreting § 5 and in applying it to the facts of particular cases arising out of unprecedented situations. Moreover, as an administrative agency which deals continually with cases in the area, the Commission is often in a better position than are courts to determine when a practice is "deceptive" within the meaning of the Act. This Court has frequently stated that the commission's judgement is to be given great weight by reviewing courts. This admonition is especially true with respect to allegedly deceptive advertising since the finding of a § 5 violation in this field rests so heavily on inference and pragmatic judgment.
versy. To provide more certainty and guidance concerning the meaning of deception, the FTC adopted a deception policy (“Deception Policy”) to synthesize the most important principles.

FTC v. Colgate - Palmolive Co., 380 U.S. 374, 385 (1965) (footnote omitted); for other cases explicitly giving broad discretion to the Commission's determinations regarding deception, see also FTC v. National Lead Co., 352 U.S. 419, 428 (1957); Jacob Siegel Co. v. FTC, 327 U.S. 608, 612-13 (1946); Simeon Management Corp. v. FTC, 579 F.2d 1137, 1145 (9th Cir. 1978); Fedders Corp. v. FTC, 529 F.2d. 1398, 1401-02 (2d Cir.), cert. denied, 429 U.S. 818 (1976); Firestone Tire & Rubber Co. v. FTC, 481 F.2d 246, 248 (6th Cir.), cert. denied 414 U.S. 1112 (1973).


Originally, Congress intended that the FTC extend beyond then-existing common law consumer protection principles, deemed ineffective, by granting the Commission broad powers to protect consumers. Courts soon removed the principle of caveat emptor from FTC law. FTC v. Standard Educ. Soc'y, 302 U.S. 112, 116 (1937). Courts recognized that an act need not constitute fraud to establish deception under the FTC Act. D.D.D. Corp. v. FTC, 125 F.2d 679, 682 (7th Cir. 1942). Decisions in the 1930s and 1940s encouraged the Commission to define "deception" broadly. BEALES & MURIS, supra note 10, at 21-22. By the 1960s, critics charged the Commission with defining deception too broadly and criticized its pursuit of trivial cases, while ignoring major abuses. Id. at 22-23. The Commission went to the other extreme in the late 1970s when it proposed regulation of advertising aimed at children. The FTC As National Nanny, Wash. Post, Mar. 1, 1978, at A22. The FTC narrowed the definition during the Reagan Administration. The FTC proposed that an act should be deceptive only if it was likely to mislead reasonable consumers. Bailey & Pertschuk, supra, at 851-55; Schechter, supra, at 576-77.


The Deception Policy has a rather torturous history. After rejecting Chairman Miller's definitional amendment to § 5, the House Committee on Commerce asked the Commission to prepare a statement detailing its deception enforcement policy. 4 Trade Reg. Rep., supra, at ¶ 20,911. In October 1983, Miller provided a statement that became known as the 1983 Policy Statement.
ples of general applicability.” According to the Deception Policy, “the Commission will find deception if there is a representation, omission or practice that is likely to mislead the consumer acting reasonably in the circumstances, to the consumer's detriment.”

The Commission first applied the Deception Policy in *In re Cliffdale Associates.* Cliffdale involved a mail-order firm claiming that a device known as the “Ball-Matic Gas Saver Valve” would increase consumers’ gas mileage substantially. The Commission charged that Cliffdale did not have a reasonable basis to substantiate its scientific test claims. Chairman Miller, writing for a majority of the Commission, applied the three-part test (“FTC Test”) established in the Deception Policy Statement to find the advertisement deceptive.

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293. Deception Policy Statement, *supra* note 292, ¶ 20,911. Chairman Miller believed the Deception Policy Statement was merely an accurate articulation of the standard established by case law. Karns, *supra* note 291, at 409. However, the Deception Policy Statement appears to have narrowed the enforcement policy and espoused a free market policy by departing from the traditional “tendency or capacity to deceive” test. *Id.* at 412-13.


295. 103 F.T.C. 110 (1984). The FTC does not engage in full-scale monitoring of print or television advertising. Instead, the FTC investigates advertising practices based on letters from consumers or businesses, inquiries from Congress, and advice from consumer protection advocates. See *Federal Trade Commission, A Guide to the Federal Trade Commission,* 3 (1987). In cases where the FTC has assumed jurisdiction and issued a complaint pursuant to 16 C.F.R. § 3.11 (1994), the respondent has 30 days to file an answer. *Id.* § 3.12(a). If the respondent does not contest the allegations in the complaint, he or she waives the right to a hearing. *Id.* § 3.12(c). The FTC then enters a consent agreement. *Id.* § 3.25. Likewise, a failure to file an answer results in a default judgment. *Id.* § 3.12(c). Should the respondent later contest the charges, an administrative law judge (“ALJ”) hears the case. *Id.* An appeal from the ALJ’s decision is heard by the full Commission which may affirm, reverse, or modify the order. 15 U.S.C. § 45(b)-(c) (1988). Finally, respondents who fail to comply with an order of the full Commission are subject to civil contempt proceedings in federal district court. *Id.* § 45(l).

296. 103 F.T.C. at 112.
The first element of the FTC Test requires that a representation, omission, or practice will likely mislead the consumer. Actual deception is not necessary. FTC administrative judges will find the claim deceptive even when the consumer discovers the truth about an advertisement before purchasing the product. In such a case, the claim still constitutes deceptive advertising because only the deceptiveness of the claim, not actual deception, is relevant.

A deceptive claim may arise expressly or impliedly. Express claims “speak for themselves.” Extrinsic evidence, such as surveys or expert testimony, may be used to interpret implied claims. The content or existence of an implied claim will be determined by evaluating the contents of the advertisement and the circumstances surrounding it. The omission of material information may also create a misleading claim.

Traditionally, deceptive advertising arises when the advertiser knows that its claims about a product are false. The Commission, however, will find that an advertiser violates the FTCA

297. Deception Policy Statement, supra note 292, ¶ 20,911-12
298. Id. ¶ 20,912; see also American Home Products Corp. v. FTC, 695 F.2d 681, 687 (3d Cir. 1982) (noting that capacity to deceive may be found without evidence of actual deception); Trans World Accounts, Inc. v. FTC, 594 F.2d 212, 214 (9th Cir. 1979) (holding proof of actual deception unnecessary).
299. “[I]t is unfair to make an initial contact or impression through a false or misleading representation, even though before purchase the consumer is provided with the true facts.” Chrysler Corp., 87 F.T.C. 719, 739 (1976), modified on other grounds, 90 F.T.C. 606 (1977); see also Preston, Definition of Deceptiveness, supra note 291, at 1047.
300. Deception Policy Statement, supra note 292, ¶ 20,911 n.4.
301. Id.; see also Fedders Corp. v. FTC, 529 F.2d 1398, 1402-03 (2d Cir.) (holding claim that air conditioners are unique in having reserve cooling power deceptive because it implied claim of high cooling performance in extreme conditions), cert. denied, 429 U.S. 818 (1976); Mytinger & Casselberry, Inc. v. FTC, 301 F.2d 534, 540-41 (D.C. Cir. 1962) (holding claim that government document implied approval or endorsement of product deceptive because document was consent decree settling criminal misrepresentation charges).
303. Id. ¶ 20,915 nn.31, 32. See also Warner Lambert Co., 86 F.T.C. 1398, 1489-90 (1975) (holding that close proximity of the phrases “Kills germs by the millions on contact” and “For general oral hygiene, bad breath, colds and resultant sore throats” implied product could cure colds and sore throats), aff’d, 562 F.2d 749 (D.C. Cir. 1977), cert. denied, 435 U.S. 950 (1978).
304. Deception Policy Statement, supra note 292, ¶ 20,911 n.4; see, e.g., Porter & Dietrich, Inc. v. FTC, 605 F.2d 294, 303-04 (7th Cir. 1979) (finding failure to disclose where substantial weight losses resulting from use of product were rare and product was a health risk), cert. denied, 445 U.S. 950 (1980); J.B. Williams Co. v. FTC, 381 F.2d 884, 889 (6th Cir. 1967) (finding failure to disclose that most people who suffered from advertised symptoms would not benefit from product advertised as a cure).
when the advertiser does not have a reasonable basis to believe the truth of its claim.\(^{305}\) This "reasonable basis doctrine" forms the root of the advertising substantiation program.\(^{306}\) Indeed, nearly all complaints, decisions, and consent orders involving deceptive advertising state that advertisers should substantiate their claims.\(^{307}\)

The second element of the FTC Test determines whether the representation in question is likely to mislead hypothetical "reasonable consumers under the circumstances."\(^{308}\) If the advertising targets a specific audience, then the Commission will consider the probable reaction of a reasonable member of that group.\(^{309}\) To determine whether a consumer has acted reasonably, the Commission considers the percentage of people who view the advertisement as deceptive.\(^{310}\) The FTC does not em-

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\(^{307}\) Shafer, supra note 285, at 4.

\(^{308}\) Deception Policy Statement, supra note 292, \(\|$\) 20,912. The prior definition was referred to as the "fool's test" and found deception where an advertising claim had the "tendency or capacity to deceive." Bealess & Muris, supra note 10, at 122. The use of a "reasonable consumer test" appears to be a shift toward a free market policy. Karns, supra note 291, at 409-13.

\(^{309}\) Deception Policy Statement, supra note 292, \(\|$\) 20,913. See, e.g., Travel King, Inc. 86 F.T.C. 715, 719 (1975) (finding the seriously ill and their families to be target audience); Heinz W. Kirchner, 63 F.T.C. 1282, 1290 (1963) (measuring advertising aimed at children by the impact on children).

\(^{310}\) Benrus Watch Co. v. FTC, 352 F.2d 313, 319-20 (8th Cir. 1965) (holding a practice deceptive if a "substantial percentage" of people could have been deceived); Exposition Press, Inc. v. FTC, 295 F.2d 869, 872 (2d Cir. 1961) (using "substantial portion" test); Statement of Basis and Purpose of Trade Regulation Rule: Unfair or Deceptive Advertising and Labeling of Cigarettes in Relation to the Health Hazards of Smoking, 29 Fed. Reg. 8324, 8350 (1964) (using "sub-
employ a bright-line percentage cutoff.\textsuperscript{311} Instead, it attempts to discover whether the seller has conveyed the allegedly deceptive message to some determinable number of people.\textsuperscript{312}

Once a claim is found to be an express or implied representation that is likely to mislead a reasonable consumer, the FTC must show that the representation is material under the third element of the FTC Test. To be material, the claim must likely affect consumers' choice of, or conduct regarding, the advertised item.\textsuperscript{313} The FTC focuses on the potential as well as the actual impact of an advertisement.\textsuperscript{314} The FTC presumes that sellers make substantive claims to affect consumers' choices about a product and the very existence of these claims ordinarily provides sufficient evidence that they are material.\textsuperscript{315}

\textit{Cliffdale} demonstrates that the FTC will aggressively prosecute advertisers making allegedly false or deceptive environmental claims. A series of cases, arising both before and after \textit{Cliffdale}, establishes the FTC's intention to prosecute companies and individuals for making misleading environmental advertising claims. In \textit{Standard Oil of California},\textsuperscript{316} the FTC charged Chevron, a Standard Oil Company, with misrepresent-
ing in its advertisements that an additive in Chevron's gasoline would cause consumers' cars to produce pollution-free exhaust. After several tests failed to verify Chevron's claim, the FTC determined that the statements and representations were false, misleading, and deceptive. Furthermore, the Commission held liable the advertising agency employed to market the product.

In *Union Carbide Corp.*, a producer of pesticides claimed that its products were absolutely safe for humans and the environment when, in fact, they were not. Union Carbide even acknowledged the environmental risks of its pesticide by placing a product warning on its label that disclosed its danger to humans, water supplies, and food. The Commission found Union Carbide's advertising claim deceptive because it tended to mislead a substantial portion of insecticide users into thinking they were handling safe products. The FTC initially ordered Union Carbide to stop representing that the products were safe, but later amended the remedy to allow safety claims provided such claims were accompanied by specified warnings.

More recently, the FTC focused on the latest wave of green advertising. In *Zipatone, Inc.*, products containing aerosol spray propellants were advertised as "ozone-friendly" and "ozone-safe," even though the propellant qualified as a Class I ozone depleting substance. The Commission found the advertising claims false and ordered the producer to cease advertising

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317. *Id.* at 1406.
318. *Id.* at 1476. The advertising agency was charged with knowing or having reason to know that the advertisements were false, misleading, and deceptive, because it had actually participated in developing the advertisements and knew the results of research done on the additive. *Id.* at 1474-76.
319. 84 F.T.C. 591 (1974); see also Hercules, Inc., 84 F.T.C. 605, 605 (1974) (ordering company to stop claiming that its insecticides were "absolutely safe to man or the environment"); FMC Corp., 86 F.T.C. 897 (1975) (same).
320. *Union Carbide Corp.*, 84 F.T.C. at 594.
321. *Id.* at 594-96.
322. *Id.* at 603.
323. No. 902-3366, 1990 FTC LEXIS 512 (F.T.C. Dec. 11, 1990); see also Jerome Russell Cosmetics, No. C-3341, 1991 FTC LEXIS 408 (F.T.C. Aug. 21, 1991) (ordering company to stop claiming its products were "ozone safe" or "ozone friendly"); Tech Spray, Inc., No. 902-3309, 1991 FTC LEXIS 521 (F.T.C. Dec. 18, 1991) (ordering company to stop representing that its products were "ozone friendly").
324. Class I ozone depleting substances are those that harm the atmospheric ozone layer and are listed as such by the EPA in compliance with the Clean Air Act of 1990. Class I Ozone Depleting Substances, 40 C.F.R. § 82 (1994); 42 U.S.C. § 7671(a) (Supp IV 1994).
its product as "ozone-friendly."325 In addition, the Commission imposed certain inspection and disclosure requirements and levied sanctions against the individually responsible corporate officer.326

The FTC has brought actions against sellers who claimed their plastic products were “improved, photo degradable and safe for the environment.”327 The FTC found that the producers lacked a reasonable basis for these statements and that the claims misled consumers.328 The FTC ordered the producers to stop making the offending claims, but subsequently allowed modified advertising claims.329 The modified claims stated that the packaging products will break down and become part of usable compost along with the contents when disposed of in composting programs.330 The seller must accompany this claim with a clarifying statement that the products will not degrade in landfills, that composting facilities are not available everywhere, and that composting plastic packaging products will only degrade in composting facilities.331

In spite of the FTC's demonstrated willingness to prosecute misleading environmental claims, environmental and industry groups demanded,332 and eventually received, uniform guidelines for advertising environmental attributes. On July 28, 1992, the FTC issued guidelines “to help reduce consumer confusion and prevent the false or misleading use of environmental terms in advertising and labeling products in the market-

326. Id.
329. RMED Int'l, 1992 FTC LEXIS 139, at *10,*11 (allowing company to represent truthfully that its diapers will compost, if it also provides information that proper composting facilities are generally unavailable in the United States).
332. Rathe, supra note 10, at 450.
Although these guidelines are not legally enforceable and do not rigidly define environmental terms, they do provide specific examples of permissible and deceptive advertising claims. By clarifying how advertisers are to use terms such as "recyclable," "degradable," "compostable," "recycled content," "source reduction," "refillable," and "ozone safe," the FTC has provided an informal "safe harbor" for advertisers who wish to tout the environmental attributes of their products.

2. State Regulation

States have also actively pursued actions against advertisers that make potentially misleading claims. All fifty states and the District of Columbia have adopted some form of the Uniform Trade Practices and Consumer Protection Act. The Act, often referred to as the "little FTC Act," provides both public enforcement and private remedies.

Almost every state consumer protection law provides for private suits. Because many consumer cases involve claims that would not cover litigation expenses, most states allow aggrieved consumers to recover minimum or multiple damages, attorney fees, and costs in addition to actual damages. Those provisions aim to encourage private suits to supplement the enforcement resources of state and federal agencies. Notwithstanding the generous private remedy provisions, state agencies initiate the bulk of enforcement actions.


334. Id.; see also Guidance for the Use of the Terms "Recycled" and "Recyclable" and the Recycling Emblem in Environmental Marketing Claims, 56 Fed. Reg. 49,992 (1991.)


336. Id. at 373.

337. Id.

338. Id. at 374-75.

Most state laws broadly prohibit "unfair and deceptive" trade practices, language taken directly from the FTCA.\textsuperscript{340} The terms "unfair" and "deceptive" stem either from cases decided under state law or from FTC regulations and case law.\textsuperscript{341} Other guidance in defining "unfair" and "deceptive" comes from state enforcement agency regulations or a statutorily provided "laundry list" of prohibited practices.\textsuperscript{342}

Although most states look to the FTCA and the FTC for interpretive guidance, variations in enforcement are inevitable. Several states, however, have joined to pursue concurrent enforcement against several national advertising campaigns that allegedly contained misleading green claims.\textsuperscript{343} In several of these cases, the FTC has also pursued concurrent enforcement under the FTCA.\textsuperscript{344} The facts of the state cases resemble the FTC cases discussed in the prior section. Because most states look to the FTCA for guidance, not surprisingly, the sanctions the states impose resemble those under the FTCA.\textsuperscript{345}

In 1990, seven states separately sued Mobil Chemical Oil Corporation alleging that Mobil had marketed its Hefty trash bags as "degradable" despite its knowledge that the bags would not degrade in landfills.\textsuperscript{346} Mobil settled the lawsuits by agreeing not to represent that its plastic bags were "degradable" that its plastic bags offered any environmental benefits unless Mobil states the specific nature of the benefit and substantiates that claim.\textsuperscript{347}

Similarly, ten states simultaneously sued American Enviro Products, Inc. ("AEP"), alleging that AEP's claim that its disposable diaper was "biodegradable" was both unsubstantiated and

\textsuperscript{340} Karns, supra note 335, at 376; Gardner & Shelden, supra note 339, at 328.

\textsuperscript{341} Karns, supra note 335, at 376-77.

\textsuperscript{342} Gardner & Shelden, supra note 339, at 330.

\textsuperscript{343} Gardner, supra note 10, at 38.

\textsuperscript{344} Id. at 37.

\textsuperscript{345} Id. at 38.

\textsuperscript{346} Id.

\textsuperscript{347} The FTC ordered Mobil to cease from representing:

(1) that any such plastic bag is 'degradable,' 'biodegradable,' or 'photodegradable'; or (2) through the use of [similar terms] that the degradability of any such plastic bag offers any environmental benefits when disposed of as trash in a sanitary landfill, unless at the time of making such representation, respondent possesses and relies upon a reasonable basis . . . .

deceptive. AEP agreed to cease making any claims of degradability or any environmental claims other than specific claims for which the company can provide prior substantiation. The settlement between AEP and the ten states substantively mirrors AEP’s settlement with the FTC.

Another multi-state group brought an action against Alberto-Culver Company ("Alberto") for promoting aerosol hair spray products as "ozone friendly" and "environmentally safe." Alberto made the claim because the products did not contain CFCs. Congress, however, had banned ozone-depleting CFCs in 1978 and thus the absence of CFCs in Alberto’s products did not distinguish its product from other products. In addition, the aerosol products contained other chemicals that depleted ozone and contributed to the smog problem. Alberto agreed that unless the company had prior substantiation, it would stop representing that its aerosol hair spray product, which contained ozone-depleting substances, or other volatile organic compounds, had any environmental benefit. Furthermore, regardless of any substantiation, Alberto could not represent that any product containing any ozone-depleting substances or volatile organic chemicals was "ozone friendly."

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348. Grodsky, supra note 10, at 180. See American Enviro Products, Inc., No. C-3376, 1992 FTC LEXIS 122, at *7 (F.T.C. Mar. 18, 1992) (ordering company not to claim its product was degradable, biodegradable, or photodegradable unless there is competent and reliable scientific evidence to substantiate the claim of degradability or environmental benefit).

349. Grodsky, supra note 10, at 155 n.35.


351. Watman, supra note 10, at 175.

352. Gardner, supra note 10, at 47.

353. Id. at 48.

354. Id. The same 10 states brought suit against Tetra-Pak, Inc. and Combibloc, manufacturers of drink boxes, for claiming that their drink boxes were as recyclable as newspaper. Id. In fact, it is very expensive to recycle drink boxes and recycling facilities are not universally available. The companies agreed to disclose the limited nature of recycling, or to limit their claims of recyclability to those areas where it is available. In addition, the companies agreed not to represent, without prior substantiation, that drink boxes offer any environmental benefits. Id.

Another diaper manufacturer, Procter & Gamble Company, advertised its disposable diapers as "compostable," and represented that composting facilities for the diapers were currently available. Howett, supra note 10, at 430. In fact, the diapers were only 80% compostable, and moreover, household trash composting facilities were not generally available. Following simultaneous state enforcement, Procter & Gamble agreed to discontinue its misleading ads, and in the future, to give greater emphasis to the limits of compostability of its diapers. Michael Parrish, P&G Agrees to Modify Its Disposable Diaper Ads, L.A. Times, Nov. 15, 1991, at D3.
Although states appear to have acted more aggressively than the FTC in pursuing allegedly deceptive environmental advertising, such behavior may not be in the public interest. Unlike the FTC, many states cling to the "fools test" of deception, which defines deception as the "tendency or capacity to deceive." Several commentators argue that the "fools test" unwisely fails to recognize that some deception is inevitable because information is a costly good. Moreover, the incentives leading to heightened state enforcement may have nothing to do with promoting efficiency, but rather, may be related to benefits inuring to the state official. Aggressive state enforcement thus may contravene the public interest.

3. Private Litigation

In addition to government enforcement, consumers or competitors may also bring suits against sellers for false, misleading, or deceptive advertising under either state or federal law. These private rights of action provide an important supplement to public enforcement. The vagaries of private litigation, however, may limit its usefulness in the area of green claims.

Common law tort actions, such as negligent misrepresentation or deceit, may provide relief for wronged consumers. Consumers, however, have little chance of prevailing on a cause of action for deceit because of the extremely difficult task of proving scienter, i.e., the intent to deceive. Negligent misrepresentation claims are also difficult to establish. Under the Restatement (Second) of Torts formulation of a negligent misrepresentation claim, a cause of action lies with the group of persons for whose benefit the information is provided (i.e., the

355. Beales & Muris, supra note 10, at 122; see also supra notes 282-334 and accompanying text (discussing FTC regulation of deception).
357. See id. at 101-13 (discussing how limits of time and resources in advertising necessarily lead to some misinterpretation by consumers).
360. Dee Pridgen, Consumer Protection and the Law § 2.08 (1992); see, e.g., Hanberry v. Hearst Corp., 81 Cal. Rptr. 519, 519 (1969) (stating that plaintiff had a cause of action for physical injuries against Good Housekeeping when she slipped while wearing shoes that bore its seal of approval).
361. Pridgen, supra note 360, § 2.05.
consumers). The Restatement expressly provides recovery for pecuniary loss, but courts only reluctantly extend liability when plaintiffs claim an intangible economic loss. In addition, proving reliance and causation may become insurmountable for consumer plaintiffs.

In most cases, the pecuniary loss that a single consumer suffers from deceptive or misleading environmental claims is so small that no individual consumer will have a sufficient incentive to bring suit. Although the solution to this problem may seem to lie in class action suits, consumer class actions can be difficult to maintain in state courts. Thus, despite the opportunity for a prevailing plaintiff to recover fees and costs, class actions are unlikely to provide significant relief.

Competitors may sue for deceptive environmental claims under section 43(a) of the Lanham Act. The standard for deceiviveness under the Lanham Act nearly mirrors the standard under the FTCA. Although early interpretations of the Lanham Act required plaintiffs to prove the elements of a common law "passing off" action, more recent cases indicate that the statute creates a remedy for a competitor's deceptive advertis-

362. Restatement (Second) of Torts § 552 cmt. h (1977).
363. Id. § 552(1).
364. Pridgen, supra note 360, § 2.08.
366. Id.
367. See Pridgen, supra note 360, § 6.06(1) (discussing recovery of attorney fees and costs under little FTC acts).
368. 15 U.S.C. § 1125(a) (1988). Under this section, there is liability for any "false or misleading description of fact, or false or misleading representation of fact which . . . (2) in commercial advertising or promotion, misrepresents the nature, characteristic, qualities, or geographical origin of his or her or another person's goods, services, or commercial activities." Id. See Tepper, supra note 365, at 958 (explaining that § 43(a) of the Lanham Act allows for an action against false advertising about one's own or another person's goods or services).
369. Indeed, "[t]he difference between Lanham Act and FTC Act definitions of deceiviveness . . . has been in terms and not in actual concepts." Preston, Definition of Deceptiveness, supra note 291, at 1039.
370. A "passing off" or "palming off" claim arose at common law when a seller substituted one brand of goods for the brand the customer ordered. See J. Thomas McCarthy, Trademarks and Unfair Competition § 25:1 (2d ed. 1984).
ing.\textsuperscript{371} Courts apparently have concluded that competitors may sue to protect consumers from deception.\textsuperscript{372}

Although section 43(a) provides a money damages remedy,\textsuperscript{373} the preferred form of relief appears to be injunctive.\textsuperscript{374} To obtain a preliminary injunction, a plaintiff must show: irreparable harm, and either a likelihood of success on the merits or "sufficiently serious questions going to the merits to make them a fair ground for litigation and a balance of hardships tipping decidedly in its favor."\textsuperscript{375} A court will presume irreparable harm when the plaintiff and defendant compete against each other.\textsuperscript{376} To demonstrate a likelihood of success on the merits, a plaintiff must show that "a not insubstantial number of consumers receive a false or misleading impression from [the advertisement in question]."\textsuperscript{377}

Although competitors clearly have standing under the Lanham Act, courts have split over whether consumers do.\textsuperscript{378} The Third and Ninth Circuits allow consumers standing, pointing to the language of section 43(a) that grants standing to "any person" likely to be injured by the falsehood.\textsuperscript{379} The Second and


\textsuperscript{372} See Petty, supra note 359, at 82 ("Other commentators have suggested that the Lanham Act may be efficient in that it allows competitors to act as avengers of consumer interest by suing one another for false advertising.") (footnote omitted).

\textsuperscript{373} Skil Corp. v. Rockwell Int'l Corp., 375 F. Supp. 777, 783 (N.D. Ill. 1974) (indicating that proof of actual deception is necessary to recover damages); Saunders, supra note 371, at 574 (citing to the Skil Corp. decision).

\textsuperscript{374} Saunders, supra note 371, at 575.


\textsuperscript{376} McNeilab, Inc. v. American Home Products Corp., 848 F.2d 34, 38 (2d Cir. 1988); see also Saunders, supra note 371, at 576 (citing to the McNeilab decision).

\textsuperscript{377} McNeilab, 501 F. Supp. at 528; see also Saunders, supra note 371, at 576.

\textsuperscript{378} Tepper, supra note 365, at 960-63.

\textsuperscript{379} Thorn v. Reliance Van Co., 736 F.2d 929, 932 (3d Cir. 1984) (holding that § 43(a) grants a right of action to any person damaged by a misrepresenta-
Seventh Circuits, however, deny standing, limiting plaintiffs to those whose commercial interests are likely to be damaged.\textsuperscript{380}

4. Legal Regulation of Third-Party Certifications

The FTCA deceptiveness, unfairness, and substantiation doctrines apply to third-party certifiers as well as direct advertisers. Indeed, the FTC has pursued enforcement actions against third-party certifiers. In \textit{Hearst Magazines},\textsuperscript{381} the FTC issued a cease and desist order against \textit{Good Housekeeping} for failing to back its seal of approval with adequate product testing.\textsuperscript{382} The FTC also alleged that the wording of the \textit{Good Housekeeping} consumer guarantee implied an unlimited guarantee.\textsuperscript{383} The FTC required that any limitations on the guarantees be "explicitly stated in immediate conjunction with all such representation of guaranty."\textsuperscript{384}

In the 1970s and 1980s, the FTC issued Guides Concerning use of Endorsements and Testimonials in Advertising ("Endorsement Guides"), which may indicate when the FTC would pursue enforcement against environmental certifiers.\textsuperscript{385} Indeed, Green Seal considers the guidelines applicable to its certification process.\textsuperscript{386}

The Endorsement Guides require that endorsements "always reflect the honest opinions, findings, beliefs, or experience of the endorser."\textsuperscript{387} A certifier must disclose any commercial...
connection between itself and the seller of certified products.\textsuperscript{3}
If an organization tests products and represents itself as an expert in the field of testing, it must use qualified experts and “standards previously adopted by the organization and suitable for judging the relevant merits of such products.”\textsuperscript{389} The expert endorsement must be supported by an examination of the product “at least as extensive as someone with the same degree of expertise would normally need to conduct in order to support the conclusions presented.”\textsuperscript{390}

Litigation, whether initiated by a public entity or a private party, has effectively provided a means to address the problems presented by misleading or false advertising claims. The remedial mechanisms discussed in this section have had a sufficient deterrent effect on false or deceptive advertising. Many commentators, however, argue that case-by-case litigation is an imperfect means for regulating green claims because of selective enforcement, understaffing, and evidentiary obstacles.\textsuperscript{391} These limitations lead many to call for increased regulation of green claims. Several of these proposals are discussed in the next section.

\section{B. DEFINITIONAL STATUTES}

\subsection*{1. Proposed Federal Legislation}

Senate Bill 615 (“S. 615” or the “Lautenberg Bill”),\textsuperscript{392} proposed by Senator Frank R. Lautenberg, is the most ambitious

\textsuperscript{388} Id. § 255.5.
\textsuperscript{389} Id. § 255.4.
\textsuperscript{390} Id. § 255.3(b).
\textsuperscript{391} See, e.g., Grodsky, supra note 10, at 156.
\textsuperscript{392} Senators Frank Lautenberg and Joseph Lieberman introduced Senate Bill 615, the Environmental Marketing Claims Act of 1991 (“The Act”), in order to decrease consumer confusion over environmental claims. See Lautenberg, supra note 10, at 307, 313-40; S. 615, 102d Cong., 1st Sess., 137 CONG. REC. S3034-39 (1991). The Act directed the EPA, in conjunction with an independent advisory board established by the Act, to create a common set of definitions and standards for various environmental claims. See Lautenberg, supra note 10, at 307, 313-40. Likewise, the proposed legislation called for certifications of products bearing environmental claims, such as “recyclable” to meet the minimum standards and definitions established by the EPA and independent advisory board. Id. Congressman Gerry Sikorski introduced a companion bill in the House of Representatives, bearing the same title as the legislation proposed in the Senate. H.R. 1408, 102d Cong., 1st Sess., 137 CONG. REC. 1669 (1991). Senators Lautenberg and Lieberman had proposed a substantially similar piece of legislation, The Marketing Claims Act of 1990, in the session just prior to the session in which Senators Lautenberg and Lieberman presented Senate Bill
proposal for federal legislation. The Lautenberg Bill would require the EPA to establish uniform standards for environmental marketing claims. The EPA would establish standards with advice from an independent board containing representatives of industry, and environmental and consumer groups. More specifically, the Lautenberg Bill would require the EPA to define certain terms with minimum threshold requirements. Any company that makes an environmentally related advertising claim would need to certify that its claim met the requirements of the Lautenberg Bill.

2. State Legislation

Several states have adopted statutes that define certain terms commonly used in environmental claims and prohibit the use of these terms unless the product meets the statutory defini-
The definitions vary widely from state to state. For example, New York defines "recycled" on a product-specific basis and has established threshold levels of post-consumer material. California defines "recycled" as an article containing "at least 10 percent, by weight, postconsumer material." Rhode Island does not specify a threshold, but requires disclosure of the amounts of pre-consumer and post-consumer material.

The states also differ on the number of terms defined. Rhode Island, New York, Connecticut and New Hampshire all define "recycled" and "recyclable." Wisconsin also defines "degradable." California and Indiana define "recyclable," "recycled," "ozone friendly," "biodegradable," and "photo degradable." The trend appears to be towards defining more, rather than fewer terms. In addition, a few states require that documentation substantiating environmental claims be made available to any member of the public who requests it.

The documentation approach, however, fails in two major respects, because it does not prescribe any particular form that the documentation must take or establish any mechanism for encouraging public requests.

Uniform definitions implicitly require determining environmental policy prior to implementing the green marketing regu-

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400. CAL. BUS. & PROF. CODE § 17,508.5(e) (West Supp. 1994).
401. R.I. GEN. LAWS § 23-18.8-3 (Supp. 1993) (authorizing director of the Department of Environmental Management to adopt standards for recycled products). Rhode Island requires paperboard packaging to be composed of at least 50% recycled paper in order to bear a recycled emblem. Id. See Howett, supra note 10, at 434 (citing to the remarks of Keith Tice, National Director of Packaging and Labeling for Sears, Roebuck & Co., at the FTC public hearings on environmental marketing and advertising guides, asserting that disclosure is required).
402. R.I. GEN. LAWS § 23-18.8-3 (director of department of environmental management setting standards for "recycled" and "recyclable").
404. CONN. GEN. STAT. ANN. § 22a-255c (West Supp. 1993) (directing the commissioner of environmental protection to adopt official symbols for recycled and recyclable, and regulations for their use).
406. WIS. STAT. ANN. § 100.295 (West Supp. 1992) (directing the department of environment to adopt standards for the use of the term "degradable").
408. IND. CODE ANN. §§ 24-5-17-2 to 24-5-17-10 (West Supp. 1994).
409. CAL. BUS. & PROF. CODE § 17,508(b) (West Supp. 1994); IND. CODE ANN. § 24-5-17-13 (West Supp. 1994).
410. See CAL. BUS. & PROF. CODE § 17,508(b) (West Supp. 1994) (lacking requirements for specific documentation and incentives for public requests); IND. CODE ANN. § 24-5-17-13 (West Supp. 1994).
lations. Before adopting a minimum threshold of twenty-five percent minimum recycled content to allow sellers to make a "Made From Recycled Materials" claim, a legislative or regulatory body must first determine that twenty-five percent is the appropriate policy goal. Although commentators have consistently called for uniform national standards and criteria for environmental claims, standardized definitions restrict the flow of information to consumers. A manufacturer that has developed a revolutionary process allowing the use of ten percent recycled material could not label its product as "recycled" if the uniform definition requires twenty-five percent recycled content. The Lautenberg Bill would prohibit the manufacturer from making any claims concerning the recycled content of its product, even though the use of ten percent recycled material may dramatically improve the environmental status quo. The uniform definition approach restricts information available to consumers and thus limits consumer choice.

C. Eco-Logo Statutes

New York, New Hampshire, and Rhode Island have adopted state-sponsored recycling logos to "assist in the development and promotion of local waste reduction, source separation and recycling programs." In each case, a state agency establishes standards for granting, overseeing, and enforcing the licensing of the logo. To date, no state has adopted a mandatory logo program, although such a mandatory system has been proposed in New Jersey. These state-sponsored logo schemes suffer from many of the same difficulties that state-sponsored labels have experienced in foreign countries.

Many countries outside the United States have established "environmental labelling," a voluntary process whereby a private or public body grants labels to inform consumers about a product's environmental impact. Survey evidence reveals that consumers prefer products that contain the "environmental lab-

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411. See, e.g., Lautenberg, supra note 10, at 307-08 (arguing for the establishment of uniform and accurate standards and definitions for environmental marketing claims); Green Report II, supra note 4, at 1-4 (same).
412. See supra note 397 and accompanying text (describing specific provisions of the Lautenberg Bill).
bel." As of 1991, Germany, Canada, Japan, Norway, Sweden, Finland, Austria, Portugal, and France all had environmental labelling programs. In addition, the European Community has established its own Community label.

In most cases, a committee determines, or merely suggests to a government minister, those product categories that should be eligible for labelling. Expert working groups help define the product category scope and the requirements that a product must meet to qualify for a label. Manufacturers may voluntarily submit their products for consideration and, if they satisfy the criteria, sign a contract for a period of years and pay a fee for the use of the label. The labelling body may periodically raise the threshold criteria if the product category as a whole has im-

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416. Twenty-two countries were expected to have environmental labels by 1992. Id. at 13. Germany's Blue Angel labeling scheme was the first to debut in 1978. Environmental Data Services, Ltd., Eco-Labels: Product Management in a Greener Europe 10 (1989). This followed recommendations by the OECD that member countries develop comprehensive waste management policies. Id.


418. See OECD, supra note 415, at 17-18. The OECD suggests that awarding the label in a particular product category should have the potential to significantly reduce environmental damage. Some of the products in the category should pose a significant environmental danger, while similar products within the category should be more benign. Some product categories, such as bullets and household chemicals, may be excluded altogether due to concerns over the environmental impact of all products in the category. Id. This is so despite the fact that some products within these categories (i.e., lead-free bullets) are less harmful than others. Id.

419. Id. at 22. The proper scope for a product category is sometimes problematic. Autos and bicycles are not close enough substitutes such that they could be put in the same category. One might think, however, that aerosol and roll-on deodorants could be. This is not the case in the German program, where CFC-free aerosols may have a label, while less harmful roll-ons may not, because they are treated as separate products. Environmental Protection: Eco-Babble, Economist, Sept. 21, 1991, at 84, 84. This may lead to greater consumer confusion. See id.; OECD, supra note 415, at 23.

420. At least one company, Henkel, a German aerosol manufacturer, has products that would qualify for the German program's Blue Angel label, but does not participate in the labelling program. Environmental Data Services, Ltd., supra note 416, at 24. Henkel believes that the label causes differentiation between one product that is environmentally compatible and others that have identical properties but carry no distinguishing mark. Id. Some government run programs have set a goal of being self-financed, although none currently is. OECD, supra note 415, at 27. The Canadian scheme was expected to be self-financing by 1990. Environmental Data Services, Ltd., supra note 416, at 31.
proved its environmental performance.\footnote{Although the extent of public participation varies, all decision-making or advisory bodies have broad representation, including members from consumer, environmental, and industry interests.\footnote{}} Although the extent of public participation varies, all decision-making or advisory bodies have broad representation, including members from consumer, environmental, and industry interests.\footnote{All labelling programs attempt to measure a given product’s “cradle-to-grave” impact using some form of the product “life-cycle” approach.\footnote{Because comparing the myriad of environmental degradations is difficult, labelling programs typically focus on a few specific aspects.\footnote{These criteria are set forth as relatively objective standards, which products must meet to gain the right to use the label.}\footnote{This “single-criterion” approach of these labelling programs has been criticized as overly simplistic.\footnote{The German program, for example, generally attempts to select the single most important environmental criterion that will allow comparison with other products.\footnote{As a result, products with an equivalent or even superior environmental performance may be excluded from the scheme, effectively penalizing their manufacturers and misleading consumers.}}}}

All labelling programs attempt to measure a given product’s “cradle-to-grave” impact using some form of the product “life-cycle” approach.\footnote{Id.} Because comparing the myriad of environmental degradations is difficult, labelling programs typically focus on a few specific aspects.\footnote{Id. at 19; see also Environmental Protection: Eco-Babble, supra note 419, at 84 (noting that the Proctor & Gamble cradle-to-grave analysis on disposable diapers was more than 100 pages long).} These criteria are set forth as relatively objective standards, which products must meet to gain the right to use the label.\footnote{Id.}

This “single-criterion” approach of these labelling programs has been criticized as overly simplistic.\footnote{See Denis Hayes, Harnessing Market Forces to Protect the Earth, Issues Sci. & Tech., Winter 1990-91, at 46, 47; Environmental Data Services, Ltd. supra, note 416, at 18.} The German program, for example, generally attempts to select the single most important environmental criterion that will allow comparison with other products.\footnote{In the German program, for example, certain gas-powered mopeds and lawn mowers get the seal based solely on their noise levels. Hayes, supra note 426, at 46, 47.} As a result, products with an equivalent or even superior environmental performance may be excluded from the scheme, effectively penalizing their manufacturers and misleading consumers.\footnote{See id. At the inception of the German Blue Angel program in 1978, products were to be eligible for the symbol if they were “exceptionally beneficial for the environment: 1) in comparison with other products serving the same purpose, 2) with no impairment of their primary function or safety, and 3)
Furthermore, the labelling commission must determine how high to set the criteria for obtaining a label. As a practical matter, the determination of the criteria entails deciding how many products will receive a label. The labelling programs all state a goal of establishing high threshold criteria to insure a "significant environmental benefit." Consequently, the labelling body often examines the market share of a product within the product category to determine whether enough consumers use the product to generate a sufficient impact on the environment. For example, the Canadian program requires that a product have the potential to gain a major benefit from the label and thus sets a ten to twenty percent market share threshold as a guide for selecting products eligible for a label.

An alternative approach emphasizes consumer information rather than competitive incentives to improve the environment. Japan uses a label simply to identify environmentally friendlier products, regardless of market share. The Japanese approach is concerned with giving a competitive advantage to labeled products, which will thus increase the market share of that product and force competing products to improve the environmental aspects of their product. This approach would reach more products and, in theory, affect more consumer purchases.

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429. OECD, supra note 415, at 21. Labels need to be awarded sparingly to raise product standards, but if too few products qualify, consumers may not be sufficiently educated. Environmental Protection: Eco-Babble, supra note 419, at 89.

430. OECD, supra note 415, at 21. The Canadian scheme is modeled closely in some respects on the German plan. Environmental Data Services, Ltd., supra note 416, at 30. Some products in the German scheme do not have a major environmental impact. For instance, Zinc-air batteries are used in small products such as hearing aids, and account for only a tiny proportion of the battery market. Their replacement of mercury oxide batteries cannot be said to have a major impact. Id. at 25-26.

431. OECD, supra note 415, at 52, 53. The Japanese program has been criticized as superficial, having granted labels in categories with trivial environmental consequences such as sponges and beverage cans with stay-on tabs. Hayes, supra note 426, at 48. The Japanese Eco-mark is usually awarded on the basis of a single environmental attribute, making possible evaluation of 850 products in one year. Id. While the criteria are less rigorous than those in Europe, the Eco-mark has become "popular with Japanese consumers, who have not traditionally been associated with environmental awareness." Office of Technology Assessment, supra note 69, at 74.

432. OECD, supra note 415, at 20-21.
An important difference among various labelling programs concerns the input from, and role of, private citizens and entities. In foreign labelling programs, the government generally assumes an active role. The scope and type of government involvement, however, varies among programs. In the Japanese program, for example, the government provides all technical, research, and administrative support. In the German and Canadian programs, the government personnel and certification authorities share responsibilities. In Sweden, Finland, and France, standardization institutes oversee the process from developing product categories and criteria to executing contracts with manufacturers who seek to use the label.

The decision-making authority in national environmental labelling programs may be divided into two groups: programs in which an independent jury has final authority and programs in which the government has final authority. Only the German labelling program gives the environmental label jury, with broad representation from interested parties, the absolute authority to determine product categories and criteria. The Austrian and Canadian programs require that the environmental label jury submit recommendations on product categories and criteria to the Minister of Environment for final approval. The two Japanese committees that determine product categories and criteria are quasi-government agencies affiliated with the Environment Agency. Although the particular composition of the environmental label jury differs from country to country, all include industry, environmental, and consumer representatives, and often other relevant manufacturing and public interest groups. Broad-based membership will tend to decrease the risk and appearance of domination by any one particular group.

433. Id. at 31.
434. Id. at 57.
435. Id. The Australian government launched its labelling program “Environmental Choice Australia” in October 1991, based largely on European labelling schemes. Neil Shoebridge, Shoebridge, BUS. REV. WKLY., May 8, 1992, at 69. Standards Australia does not support the basis of the Environmental Choice program and will recommend an alternative based on “objective criteria.” Id.
436. OECD, supra note 415, at 31-32.
437. Id. at 31.
438. Id. The Canadian program has a provision for public comments on proposed product categories and environmental criteria. ENVIRONMENTAL DATA SERVICES, LTD., supra note 416, at 31.
439. OECD, supra note 415, at 53, 54.
440. Id. at 32.
The European Community established a Community Eco-label award scheme designed to "complement other existing or future community labelling systems." The program follows a cradle-to-grave approach and divides responsibility among the member nations to offer product criteria for particular products. The EC program intends to reduce the environmental impact of products during their life cycle and to provide consumers with better information about the environmental impact of products.

Going beyond voluntary labelling programs, some governments have imposed affirmative duties on companies to reduce waste. Japan, for instance, implemented a recycling law that mandates recovery rates of nearly sixty percent for most discarded materials (i.e., glass, paper, aluminum cans, steel cans, and batteries) by the mid-1990s. Germany's Waste Disposal Law ("Waste Law"), the strictest plan in the EC, places responsibility for disposal on trade and industry. The Waste Law requires companies to take back and recycle used packaging. Although the Waste Law does not require consumers to return packaging, producers must accept it if they do.

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441. 1992 O.J. (L 99), supra note 417, at 1. In light of the EC Eco-label, six EC countries with no plans for a national environmental label are cooperating with the plans for the community-wide label. OECD, supra note 415, at 68-69.

442. 1992 O.J. (L 99), supra note 417, at 2, 4. Some of the countries responsible for initial product groups are: Denmark, domestic paper products; Spain, batteries; France, paints and varnishes and insulation materials; Germany, laundry detergents; and the United Kingdom, washing machines. OECD, supra note 415, at 71-73. Like other schemes, various interest groups, including industry, commerce, and consumer and environmental organizations, will be represented. 1992 O.J. (L 99), supra note 417, at 3. The criteria established by the former members will be evaluated approximately every three years. Id. Each Community member will have a "competent body" that decides whether to award the label to a particular product. Id. at 4. The competent bodies of other member nations have 30 days to object to the award, which may then force a vote by the Commission (composed of representatives of EC states). Id.

443. 1992 O.J. (L 99), supra note 417, at 2. Over two years after adoption of the Eco-label, only five products could lay claim to the label, and the Commission and Member States have only managed to reach agreement on the criteria for award of the label for two products—washing machines and dishwashers. Green Labelling: European Eco-Label About to be Flushed Away?, supra note 18 (no pagination).

444. Office of Technology Assessment, supra note 69, at 73.


446. Id. at 1136. The Waste Law, in particular, has raised several problems. An 80% recycling rate mandated by 1995 exceeds any level currently achieved and probably sets an unachievable goal. See Office of Technology Assessment, supra note 69, at 71. Moreover, the Waste Law unduly focuses on recycling, yet without enlisting the help of consumers, and ignores the goals of
V. MARKETS OR GOVERNMENTS: HAVE WE FIGURED THIS OUT YET?

EOI reveals that the government should intervene in the market only when evidence of systematic market failure exists. Both the FTC447 and the United States Supreme Court448 recognize the benefits of informational advertising and thus recognize that information is an economic good. Persistent deceptive advertising, however, if left unchecked, may result in a misallocation of resources and eventually undermine the system.449 Market failure alone does not necessarily justify government intervention.450 The appropriate question is whether government intervention will result in a more efficient allocation of resources.451

In the market for environmental information, some consumer uncertainty persists. Consumer uncertainty alone, however, does not justify additional regulation. The market appears to function extremely well with intervention limited to regulation of deceptive advertising. Anti-deceptive advertising regulations can make the market for environmental information more efficient.452 The FTC has favored a market-oriented approach to

source reduction. Id. Finally, the Waste Law raises potential problems with respect to international trade because it applies to all products sold in Germany. Id.

448. See, e.g., Virginia State Bd. of Pharmacy v. Virginia Citizens Consumer Council, 425 U.S. 748, 763 (1976) ("As to the particular consumer's interest in the free flow of commercial information, that interest may be as keen, if not keener by far, than his interest in the day's most urgent political debate.").
450. Beales et al., supra note 136, at 502-03.
451. Id. at 501. Allocation of resources may be more "efficient" in several ways. First, allocation may be efficient in the sense that consumers are able to purchase products with those attributes that they desire. Second, resource use may be efficient in the sense that informational resources are supplied at lower cost. As this Article reveals, neither of these benefits is likely to occur with additional government intervention into the environmental advertising market.
452. Although commentators differ on the level of market intervention, there appears to be agreement that some enforcement activity is appropriate. See, e.g., Posner, supra note 134, at 31 (appraising FTC enforcement in light of economic criteria); Robert Pitofsky, Advertising Regulation and the Consumer Movement, in ISSUES IN ADVERTISING: THE ECONOMICS OF PERSUASION, supra note 128, at 27.

The disputes among the commentators appear to be focused around two issues: 1) the elimination of the "fool's test" for deception, see supra notes 291-315 and accompanying text, and 2) competitor's rights to sue pursuant to § 43(a) of the Lanham Act. See supra notes 368-380 and accompanying text.
regulating advertising as reflected by its adoption of the “reasonable consumer” standard in its Deception Policy.453

Unfortunately, states have not followed the FTC’s constraint. State enforcement agencies have more aggressively enforced allegedly “unfair” or “deceptive” advertising.454 The states’ enforcement activities contradict the principles discussed earlier in this Article and have little to do with consumer welfare considerations. Professors Beales and Muris highlight the ulterior motives of state officials who initiate enforcement actions. Foremost, a state official will benefit from publicity.455 Ironically, citizens of other states bear the bulk of these enforcement costs.456 The extraterritorial effect of an individual state’s enforcement action means that only a small portion of the affected population participates in the political process that influences the level and type of enforcement activity.457 Beales and Muris suggest that, as a result, states resort to simple theories, such as the pre-Deception Policy definition of deception, and


453. See supra notes 289-315 (discussing evolution of the FTC’s deception standards).

454. See supra notes 335-354 and accompanying text (discussing state regulation).


457. Id.
avoid technical evidence, such as consumer surveys, to more easily prevail in enforcement actions.\textsuperscript{458}

Because state enforcement will not enhance consumer welfare, enforcement should rest exclusively with the FTC. A preemptive federal scheme remains unlikely.\textsuperscript{459} The FTC Guidelines have thus far limited much state enforcement. Although the FTC could have provided “guidance” through case-by-case enforcement, adopting the FTC Guidelines indicated the FTC’s seriousness and reduced the perceived benefit from additional state action. Indeed, the FTC Guidelines may deter any additional statutory and regulatory activity by the states.\textsuperscript{460}

Some commentators argue that the FTC Guidelines do not sufficiently address the environmental problem and point to the need for mandatory, uniform definitions.\textsuperscript{461} Uniform definitions, however, inappropriately mix environmental policy and advertising policy.\textsuperscript{462} Although a lack of standardization is a market imperfection often apparent in information markets,\textsuperscript{463} imposing uniform definitions when no consensus exists concerning the underlying policy is foolhardy, at best. At worst, it becomes deceptive and unduly paternalistic.\textsuperscript{464}

In addition, increased government intervention necessarily imposes serious costs. Most importantly, increased regulation risks chilling beneficial informational advertising.\textsuperscript{465} “Single definition” statutes limit beneficial speech; a manufacturer may not advertise its product as “recycled,” for example, unless it

\textsuperscript{458} Id. at 147-50.
\textsuperscript{459} All of the federal proposals specifically preserve state enforcement. See supra notes 392-398 and accompanying text (discussing proposed federal legislation).
\textsuperscript{460} Beales & Muris, supra note 10, at 111-12.
\textsuperscript{461} See supra notes 107-114 and accompanying text.
\textsuperscript{462} See supra notes 115-132 and accompanying text (discussing problems with advertising regulations).
\textsuperscript{463} See Michael L. Katz & Carl Shapiro, Network Externalities, Competition, and Compatibility, 75 Am. Econ. Rev. 424, passim (1985) (discussing information standardization).
\textsuperscript{464} See supra notes 122-132 and accompanying text (discussing paternalistic aspects of environmental advertising regulations).
\textsuperscript{465} See, e.g., Epilogue to Member of the Federal Trade Commission Together With Comments from Other Members of the Commission, FTC Review (1977-84): A Report Prepared for the Subcommittee on Oversight and Investigations of the House Committee on Energy and Commerce, 98th Cong. 2d Sess. 242 (1984) (“Overregulation of advertising can chill aggressive competition and impose fruitless burdens on a shaky economy.”); Pitofsky, supra note 449, at 701 (“[T]he major recent programs [to regulate advertising] are based on a revised and more sensible view of the function of advertising in the market and should result in higher levels of consumer welfare.”).
meets the statutory definition. Yet, there is nothing magical in the definitions. In formulating advertising policy, those deciding that a "recycled" product must contain twenty-five percent recycled materials do not base their decision on scientific certainty or on an examination of manufacturing processes; rather, the policy maker subjectively decides that twenty-five percent is a good target. A manufacturer whose product contains ten percent recycled materials thus can not advertise that attribute even though the use of ten percent recycled materials may provide a significant environmental benefit when compared to competitors.

A final possibility is to create a government-sponsored seal of approval. The experience in Japan, Germany, the EC, and other countries demonstrates that labelling programs suffer from numerous pitfalls. Primarily, as with establishing uniform definitions, the environmental policy decisions must be made prior to defining the conditions necessary for granting a seal. Moreover, as with the problems of PLCAs, the standards to receive a logo involve making tradeoffs between environmental impacts that only can be made based on value judgments. Secondarily, the large bureaucratic costs of an environmental labelling program will likely exceed the social benefits. The market can develop alternatives to a government seal and more efficiently disseminate information concerning the environmental attributes of products.

CONCLUSION

Because the market appears to function efficiently, those who favor additional regulation bear the burden of proving that government intervention will leave consumers in a better position. Commentators favoring such intervention have not met this burden. Consumers have become better informed about the environmental attributes of products without government regulation and have a large amount of information available to evaluate environmental choices. Environmental advertising is an important piece of that information puzzle. Any remaining consumer uncertainty corresponds with the recognition that infor-

466. See supra notes 50-105 and accompanying text (discussing PLCAs).
467. Id.
468. See OECD, supra note 415, at 24-28 (discussing program financing).
469. See Zauderer v. Office of Disciplinary Counsel, 471 U.S. 626, 638 (1985) ("[T]he free flow of commercial information is valuable enough to justify imposing on would-be regulators the costs of distinguishing the truthful from the false, the helpful from the misleading, and the harmless from the harmful.").
information is a costly good. Commentators argue that consumer purchasing patterns are not consistent with their own, usually undisclosed, visions of environmental policy. These commentators seemingly would craft environmental advertising policy to subversively accomplish their undisclosed policy goals. This approach would require limiting environmental information to that which is consistent with the environmental policy advanced. Deceiving consumers under the guise of advertising policy is completely inconsistent with the underpinnings of consumer protection and should be avoided.