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COMPETING ON QUALITY OF CARE: THE NEED TO DEVELOP A COMPETITION POLICY FOR HEALTH CARE MARKETS

William M. Sage* Peter J. Hammer**

> As American health care moves from a professionally dominated to a marketdominated model, concerns have been voiced that competition, once unleashed, will focus on price to the detriment of quality. Although quality has been extensively analyzed in health services research, the role of quality in competition policy has not been elucidated. While economists may theorize about non-price competition, courts in antitrust cases often follow simpler models of competition based on price and output, either ignoring quality as a competitive dimension or assuming that it will occur in tandem with price competition. This unsystematic approach is inadequate for the formulation of policy in the health care industry, where quality is a central concern of both consumers and society. Instead, courts need a framework with which to analyze the implications for quality of various market structures and to understand the welfare implications of proposed market changes. A competition policy would seek to evaluate the potential for private markets to protect and improve quality in the health care system. This Article describes the present role of antitrust law in medical markets, explores the issues that would be confronted in developing a competition policy and outlines a research agenda that would begin to accomplish that task.

Introduction

As American health care moves from a professionally dominated to a market-dominated model, there is concern that competition, once unleashed, will focus on price to the detriment of quality. Although quality has been analyzed extensively in health services research, the role of quality in regulatory oversight of health care competition has not been elucidated. There is no consistent, well

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thought-out competition policy guiding private, state, and federal conduct as it affects health care quality. A competition policy would seek first to understand what is meant by quality as a potential benefit of competition in health care, and then to determine how best to structure oversight of the competitive marketplace so as to advance quality and generate appropriate price/quality tradeoffs.

We approach these problems through the lens of antitrust law, which is government's principal tool for promoting competition and overseeing private markets. With support from the Robert Wood Johnson Foundation's Investigator Award Program in Health Policy Research, we have embarked upon a two-year research endeavor exploring quality competition in health care. This Article outlines the intellectual framework for that project, identifies the range of questions that we hope to address, and articulates our initial premises. However, a definitive analysis must await the outcome of our empirical research.

Part I of this Article examines the function of antitrust law in health care and reveals an essentially unfinished story. Antitrust law was critical in clearing the space necessary for the market model to take root and transform the health care industry. It accomplished this in large part by rejecting defendants' arguments about quality that were merely pretexts to forestall active price competition. Novel not long ago, these rejections are becoming rote. Nonetheless, quality concerns persist and are increasingly complex, raising a need to reexamine and reformulate the interconnected roles of competition theory, antitrust law, and health care regulation.

Part II explores the limitations of antitrust law in addressing quality competition. The economic models that have become paradigmatic of modern antitrust law focus on price competition between products that are perfect substitutes.² This approach presents inherent difficulties in evaluating markets where quality concerns dominate or where there is substantial product differentiation. Part III therefore questions the core assumptions of antitrust policy in light of common conditions in health care markets. Complicating factors include the problem of information asymmetry, the puzzle of buyer concentration, the prevalence of

^{1.} See infra notes 17-22 and accompanying text (discussing National Society of Professional Engineers and Indiana Federation of Dentists).

^{2.} See infra notes 35–39 and accompanying text (discussing the reliance of antitrust law on the economic models of monopoly-Cournot-perfect competition to guide antitrust policy).

private insurance, and the role of government controls and professional self-regulation.

Finally, Part IV outlines a plan that holds promise for addressing these concerns. Our proposed agenda has four components: developing a taxonomy and standardized vocabulary for quality-based competition in health care; creating and analyzing a database of quality issues that have come to the attention of antitrust enforcement; comparing legal constructs of quality to market preferences and behavior through structured interviews with regulators, providers, insurers, purchasers, and consumers; and synthesizing our legal analysis and empirical findings into recommendations for health care policymakers regarding the role that a competition policy can play in achieving quality goals. Our prescriptions will likely include changes to both antitrust law and the surrounding regulatory environment, and will attempt to resolve the tradeoffs between price and non-price competition and between competitive objectives and noncompetitive objectives in health law and policy.

I. Antitrust, Quality, and Medical Markets: An Unfinished Story

Federal antitrust law represents the primary mechanism by which government protects competition in the economy. The core assumption of antitrust law is that competitive markets are efficient, meaning that sellers produce goods and services in the least costly manner, prices approximate marginal costs, and resources are allocated to their most valued ends. This assumption applies to markets where competition takes place in terms of price, as well as to markets where competition is based predominantly on quality

^{3.} Anticompetitive behavior may include mergers; collaborations on products, territories, prices, or standards; refusals to deal; and affiliations among suppliers, manufacturers, and distributors. Antitrust laws are primarily enforced by the U.S. Department of Justice (DOJ) and the Federal Trade Commission (FTC) and come into play when a single seller becomes powerful enough to influence market conditions or when more than one seller seeks similar advantage by agreement. Section 1 of the Sherman Antitrust Act declares unlawful "[e]very contract, combination . . . or conspiracy, in restraint of trade " 15 U.S.C. § 1 (1994). Section 2 of the Sherman Antitrust Act prohibits monopolization and attempted monopolization. See 15 U.S.C. § 2 (1994). Section 7 of the Clayton Act condemns mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly." 15 U.S.C. § 18 (1994). Finally, section 5 of the Federal Trade Commission Act prohibits "[u]nfair methods of competition." 15 U.S.C. § 45 (1994). See generally Herbert Hovenkamp, Federal Antitrust Policy: The Law of Competition and Its Practice (1994) [hereinafter Hovenkamp, Federal Antitrust Policy: The Law of Competition and comprehensive analysis of legal principles and policy issues concerning antitrust law).

(the term we use to denote considerations other than price).⁴ With respect to health care, this means that courts start with the belief that if private markets are permitted to operate in a free and unrestrained manner, market forces will determine the appropriate prices for medical services, the appropriate organizational forms for health care financing and delivery, the appropriate tradeoffs between price and quality, and the appropriate tradeoffs among different quality attributes.⁵

Unfortunately, this faith in markets can be misplaced. Health care markets could provide either too much or too little quality for the price. Under traditional systems of fee-for-service payment coupled with pervasive insurance coverage, competition was channeled from price to quality and arguably produced more quality than was socially optimal. Under modern systems of pre-payment,

^{4. &}quot;Quality" and "non-price" competition are slippery concepts as applied to health care. Indeed, the first step in the research agenda outlined in Part IV is to develop a taxonomy for quality competition. The reader of this Article is encouraged to read the terms "quality" and "non-price" competition in context. At one level, it is useful to draw a broad distinction between price and all forms of non-price competition. Other times it is helpful to distinguish "quality" as a medical concern from other forms of non-price competition, such as location, physical amenities, and waiting times. In addition, horizontal conceptions of quality—variety and other indicia of product differentiation—can be distinguished from vertical conceptions. Quality also depends on medical need. Because few health care services are risk-free, the relationship between quantity and quality is more complicated than is the case for most consumer goods.

^{5.} In extending antitrust law's full reach to the non-price dimensions of professional services, the Supreme Court invoked the same efficiency assumptions ordinarily associated with price competition. See FTC v. Indiana Fed'n of Dentists, 476 U.S. 447, 459 (1986) ("A refusal to compete with respect to the package of services offered to customers, no less than a refusal to compete with respect to the price term of an agreement, impairs the ability of the market to advance social welfare by ensuring the provision of desired goods and services to consumers at a price approximating the marginal cost of providing them."); National Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679, 695 (1978) ("The assumption that competition is the best method of allocating resources in a free market recognizes that all elements of a bargain—quality, service, safety, and durability—and not just the immediate cost, are favorably affected by the free opportunity to select among alternative offers.").

^{6.} See H.E. Frech III, Competition and Monopoly in Medical Care 150–51 (1996) (examining the conflicting evidence regarding the effects of competition on quality and non-price attributes). A persistent theme in this Article is the indeterminate welfare implications of many economic models of non-price competition, forcing reliance on empirical information that is itself incomplete. See, e.g., discussion infra Parts II.A (contrasting situations where non-price differentiation increases social welfare with situations where differentiation can reduce price competition and social welfare), III.E (examining the often indeterminate relationship between market structure and market outcomes).

^{7.} In traditionally structured health care markets, quality competition may have been an inefficient response to a lack of price competition, dissipating economic rents without commensurate social benefit. Rampant quality competition between hospitals, particularly in terms of intensity of service and use of technology, has ambiguous consequences for consumers. Certainly, patients who are insured against the monetary costs of care value more highly such nonmonetary benefits as quality, time savings, comfort, and convenience. See Sherry Glied, Chronic Condition: Why Health Reform Falls 74–78 (1997) (discussing

where prices are readily apparent but quality can only be imperfectly observed, competition may trigger price concessions that are possible only if quality is reduced to suboptimal levels. Alternatively, quality can be thought of in terms of product differentiation, meaning the range of price/quality and quality/quality combinations available to consumers. Along this dimension, health care markets may exhibit excessive product differentiation if differentiation serves to deter price competition by making it harder for consumers to comparison shop, or may exhibit insufficient product differentiation if individual preferences are not reflected in aggregate purchasing decisions of third-party payors or group sponsors such as private employers, or if legal standards overly restrict the range of possible product offerings.

the moral hazard effects of private insurance and its consequences for individual consumption decisions in health care markets). However, unrestricted quality competition has also been described as a "medical arms race," implying that efficiency would improve and consumers would be better off in a more disciplined system. See, e.g., Uwe E. Reinhardt, Reforming the Health Care System: The Universal Dilemma, 19 Am. J.L. & Med. 21, 36 (1993); James C. Robinson & Harold S. Luft, Competition and the Cost of Hospital Care, 1972 to 1982, 257 JAMA 3241, 3244 (1987). This is particularly worthy of concern at the individual level because of the physical risks associated with invasive medical care, and at the social level because of the tenuous connection between investment in health care technology and improvement of basic health indicators such as life expectancy.

In today's managed health care system, quality competition appears to be driving consumer choice among Medicare HMOs. Until recently, the premium the federal government paid HMOs serving Medicare beneficiaries was based on the average cost of fee-for-service Medicare in the same geographic area—the Adjusted Average Per Capita Cost (AAPCC). See PHYSICIAN PAYMENT REVIEW COMMISSION, 1995 ANNUAL REPORT TO CONGRESS 87-112 (1995) (describing traditional and recommended Medicare risk program payment policies). Yet it appears that HMOs, which still account for only about 15% of Medicare enrollment, attract healthier individuals who incur below-average costs. See Joseph P. Newhouse et al., Risk Adjustment and Medicare: Taking a Closer Look, HEALTH AFF., Sept.-Oct. 1997, at 26, 29. To the extent that there is active competition in the market, the resulting windfall is often transformed into higher enrollee benefits, such as outpatient prescription drug coverage, as Medicare HMOs competed with one another on non-price grounds. This "overpayment" has attracted the attention of government budget-cutters. See, e.g., U.S. GENERAL ACCOUNTING Office, Pub. No. HEHS-96-21, Medicare Managed Care: Growing Enrollment Adds URGENCY TO FIXING HMO PAYMENT PROBLEM (1995). The Balanced Budget Act of 1997 required the Health Care Financing Administration (HCFA) to develop risk-adjusters, competitive bidding systems, and other methods to squeeze out surplus, See MEDICARE PAYMENT ADVISORY COMMISSION, REPORT TO THE CONGRESS: MEDICARE PAYMENT POLICY 27-46 (1999) (describing the new Medicare+Choice program). Of course, the popularity of Medicare managed care depends considerably on the availability of these "extra" benefits.

8. Price/quality differentiation reflects different combinations of price and quality attributes, such as low-price-low-quality options and high-price-high-quality options. Quality/quality differentiation envisions different possible combinations of quality attributes that consumers could select from. Some consumers may prefer the latest technology and highly invasive procedures. Other consumers may prefer alternative treatments, neighborhood clinics, or a reputation for a friendly bedside manner.

While economists have long recognized the complexities of nonprice competition,9 antitrust courts typically employ simpler models of competition based on price and output, either ignoring quality as a competitive dimension or assuming that it will occur in tandem with price competition.¹⁰ This approach allows courts to condemn anticompetitive practices that result in higher prices and lower quality, but places situations where consumers are getting more but paying more, or paying less but getting less, outside their analytic reach. In Marshfield Clinic, 2 a dispute between the largest insurer and the largest multispecialty medical clinic in Wisconsin, the United States Court of Appeals for the Seventh Circuit rejected the plaintiff's argument that the higher prices charged by the Marshfield Clinic constituted credible evidence of market power.¹³ Instead, without defining what he meant by "quality" or explaining how much one should pay to get it, Judge Posner praised the clinic's reputation for excellence, and noted that "[g]enerally you must pay more for higher quality." At the same time, Judge Posner questioned the quality of managed care, observing that "the HMO's incentive is to keep you healthy if it can but if you get very sick... to let you die as quickly and cheaply as possible." There is an element of truth to both of these observations, but such statements hardly offer a systematic assessment of quality and provide little guidance as to how antitrust law should address tradeoffs between quality and price.

Although its analytic power to assess price/quality tradeoffs is underdeveloped, antitrust law is no stranger to the quality debate in health care. In the 1970s and 1980s, principles of market competition were introduced to the health care system, which was previously characterized by professional decision making, patient

^{9.} See, e.g., George J. Stigler, Price and Non-price Competition, 76 J. Pol. Econ. 149 (1968). For earlier economic treatments of quality competition, see Lawrence Abbott, Quality and Competition (1955); Robert Dorfman & Peter O. Steiner, Optimal Advertising and Optimal Quality, 64 Am. Econ. Rev. 826 (1954).

^{10.} See E. Thomas Sullivan, On Non-price Competition: An Economic and Marketing Analysis, 45 U. PITT. L. Rev. 771, 773–76 (1984) (discussing the limitations of constructing an antitrust policy exclusively in terms of economic models of price-quantity competition); see also authorities cited infra note 55 (discussing the price myopia of current antitrust analysis).

^{11.} See William M. Sage, Judge Posner's RFP: Antitrust Law and Managed Care, HEALTH AFF., Nov.—Dec. 1997, at 44, 56–57 (discussing the inability of current antitrust framework to address issues of health care quality) [hereinafter Sage, Antitrust Law and Managed Care].

^{12.} Blue Cross & Blue Shield United v. Marshfield Clinic, 65 F.3d 1406 (7th Cir. 1995), cert. denied, 516 U.S. 1184 (1996).

^{13.} See id. at 1411-12.

^{14.} Id. at 1412.

^{15.} Id. at 1410.

deference, and price-insensitive insurance payment.¹⁶ Antitrust enforcement played an important role in the rise of the market model by refuting the traditional view that professional standards and practices should not be subjected to legal scrutiny for potential anticompetitive effects.¹⁷ In early disputes, quality considerations were often invoked by professionals to justify collective action to keep prices high. In *National Society of Professional Engineers*, ¹⁸ for example, the Supreme Court rejected the contention that competitive bidding would lead buyers of engineering services to pay insufficient attention to quality and safety.¹⁹

A variant of the same argument failed to persuade the Court in a case involving health care: Federal Trade Commission v. Indiana Federation of Dentists.²⁰ The Indiana Federation of Dentists, a professional association, agreed among its members to refuse to submit dental x-rays to insurers who requested them in order to verify the need for treatment. The Federation argued that patient welfare is enhanced when treatment decisions are left to professional discretion. The Court distilled this position to the conviction "that an unrestrained market in which consumers are given access to the information they believe to be relevant to their choices will lead them to make unwise and even dangerous choices," and rejected it as "nothing less than a frontal assault on the basic policy of the Sherman Act."

The major contribution of antitrust doctrine in these cases was to pull aside the curtain on assertions of patient protection that concealed economically self-interested behavior by health care providers, and thereby affirm consumer sovereignty as a guiding principle in health care as in other industries. Courts tended to

^{16.} See Peter J. Hammer, Questioning Traditional Antitrust Presumptions: Price and Non-Price Competition in Hospital Markets, 32 U. MICH. J.L. REFORM 727, 732–38 (1999) [hereinafter Hammer, Questioning Traditional Antitrust Presumptions] (contrasting the "old" and "emerging" economic regimes in health care markets and examining the increasingly important role of price competition).

^{17.} See, e.g., FTC v. Indiana Fed'n of Dentists, 476 U.S. 447 (1986) (declaring the Federation's policy of refusing to provide dental x-rays to third party payors an unreasonable restraint on trade); Arizona v. Maricopa Med. Soc'y, 457 U.S. 332 (1982) (declaring per se illegal the medical society's schedule of maximum fees to be charged insurance companies); National Soc'y of Prof'l Eng'rs v. United States, 435 U.S. 679 (1978) (declaring per se illegal the professional association's ethical rule prohibiting competitive bidding); Goldfarb v. Virginia State Bar Ass'n, 421 U.S. 773 (1975) (condemning as unlawful the bar association's schedule of minimum fees for legal services which were enforced with the threat of disciplinary sanctions for "unethical" conduct).

^{18.} National Soc'y of Prof'l Eng'rs, 435 U.S. at 679.

^{19.} See id. at 695.

^{20.} See Indiana Fed'n of Dentists, 476 U.S. at 447.

^{21.} See id. at 463

^{22.} See id. (quoting National Soc'y of Prof'l Eng'rs, 435 U.S. at 695).

proceed carefully, however, recognizing their own limitations where complex medical issues were concerned, and qualifying their rulings to accommodate professional ideals to the extent they were compatible with general market mechanisms.²³ Antitrust law in this era therefore did not address quality competition as an end in itself, but rather opened up the health care system to price competition by establishing that quality considerations were insufficient to exclude health care from a market paradigm.

In its most recent term, the Supreme Court considered competition for dental services in California Dental Association v. Federal Trade Commission. The defendant, a non-profit professional association, had enforced its ethical guidelines to "preclude[] advertising that characterized a dentist's fees as being low, reasonable or affordable, . . . [and to] prohibit[] all quality claims. Rehearsing the lessons of past decisions, a unanimous Court had no difficulty confirming the FTC's jurisdiction over the defendant despite its non-commercial form, holding that "the economic benefits conferred upon the CDA's profit-seeking professionals plainly fall within the object of enhancing its members' 'profit.' "However, the Court divided sharply as to the likely effect on quality competition of restricting consumer information, with the majority holding that the ban could not be condemned as anticompetitive absent full rule-of-reason analysis on the grounds that "a market

^{23.} The strongest indication that the Court might specifically tailor a set of antitrust rules for the learned professions was contained in *Goldfarb's* infamous footnote 17:

The fact that a restraint operates upon a profession as distinguished from a business is, of course, relevant in determining whether that particular restraint violates the Sherman Act. It would be unrealistic to view the practice of professions as interchangeable with other business activities, and automatically to apply to the professions antitrust concepts which originated in other areas. The public service aspect, and other features of the professions, may require that a particular practice, which could properly be viewed as a violation of the Sherman Act in another context, be treated differently.

Goldfarb v. Virginia State Bar Ass'n, 421 U.S. 773, 788–89 n.17 (1975). The promise of a uniquely tailored set of antitrust rules for the professions, however, was never actually realized. See Thomas E. Kauper, The Role of Quality of Health Care Considerations in Antitrust Analysis, 51 Law & Contemp. Probs., Spring 1988, at 273, 281–92 (examining the case law from Goldfarb to Indiana Federation of Dentists). What would be useful today is not a set of rules designed to accommodate the "public service" aspects of the professions, but rather a set of antitrust principles that could more directly address underlying economic problems of price and non-price competition.

^{24. 119} S. Ct. 1604 (1999).

^{25.} *Id.* at 1618–19 (Breyer, J., concurring in part and dissenting in part) (quoting *In re* Cal. Dental Ass'n, 121 F.T.C. 190, 301, 308 (1996)).

^{26.} Id. at 1611.

for professional services . . . magnifies the dangers to competition associated with misleading advertising."²⁷

Importantly, not even California Dental Association addresses price/quality tradeoffs, except to assume that the right mix would emerge from competition. Now that markets have attained a dominant position in health care, the demands placed on competition, and hence on antitrust law, are different and greater. Ideally, competition in health care should achieve not only fair prices and full output, but also appropriate quality. Unfortunately, competition in health care may be falling short in that respect. A few employers factor performance into their insurance purchasing decisions, and non-price attributes of health plans such as choice among and reputation of physicians continue to attract individual consumers. On the other hand, many consumers of health insurance and health care services bargain aggressively for low prices, but take quality for granted. 29

Health policy and antitrust law must adopt a proactive rather than reactive posture with respect to quality in this new era. It is no longer enough to dispel myths about preserving quality in order to promote price competition. Instead, antitrust enforcers and courts must work to create conditions under which quality competition can flourish, preserving benefits such as performance, choice, service and innovation. Unfortunately, no compelling model of quality competition in health care yet exists that would allow courts to expand their vision. ³⁰

To the contrary, courts deciding health care antitrust cases seem to be struggling with quality as a competitive dimension, sometimes adopting radical nonmarket approaches by default. In $FTC\ v$.

^{27.} Id. at 1613. One antitrust scholar regards the Court's reluctance to characterize restrictions on health care advertising as anticompetitive as part of a legislative and judicial backlash against the perceived excesses of the managed care marketplace. See Thomas L. Greaney, Antitrust and the Healthcare Industry: The View from the Three Branches (California Dental Association v. FTC, United States v. Aetna-Prudential, and Congressional Support for the Physician Union Movement), 32 J. HEALTH & HOSP. L. 391 (1999).

^{28.} See Michael L. Millenson, Demanding Medical Excellence: Doctors and Accountability in the Information Age 206–07, 358 (1997) (discussing the experience of specific employer plans).

^{29.} See JACK A. MEYER ET AL., THEORY AND REALITY OF VALUE-BASED PURCHASING: LESSONS FROM THE PIONEERS (Agency for Health Care Policy and Research Pub. No. 98-0004, 1998) (reporting lack of attention to quality in purchasing decisions by employers).

^{30.} See Kauper, supra note 23, at 292–319 (providing an extensive examination of the manner in which the law, the courts, and the enforcement agencies have addressed—and failed to address—quality concerns); see also infra notes 113–17 and accompanying text (discussing the indeterminacy of economic models of non-price competition).

Butterworth Health Corp., 31 the district judge allowed the two largest hospitals in Grand Rapids, Michigan to merge on the condition that the hospitals agree to a consent decree that included extensive restrictions on future competitive behavior. 32 Moreover, the district court appeared unconcerned about possible price increases, on the assumption that the money would automatically be spent by the community board to improve "quality." 33 This type of reasoning highlights the need for a framework within which price/quality and quality/quality tradeoffs can be addressed by courts, antitrust enforcers, and health care policymakers as they shape the future competitive environment of the health care system.

II. Non-Price Competition and Antitrust Law

"Antitrust" law is a uniquely American construct. Most European countries speak of "competition" law, which is based on a broader conception of government's role in consumer protection and economic development.³⁴ It is helpful to think explicitly in terms of constructing a competition policy for health care markets, of which antitrust law, although important, is simply one component. A competition policy recognizes that markets do not exist in isolation from public institutions and social values and that defining the boundaries between market and non-market objectives, and between antitrust law and other forms of government regulation, will play an essential role in promoting health care quality. Before taking two steps forward in this direction, however, it is necessary to take one step back and consider in greater detail the strengths and weaknesses of existing price-based antitrust law.

Modern antitrust law is premised on a few basic economic models and the essential belief that a relatively seamless continuum can

^{31. 946} F. Supp. 1285 (W.D. Mich. 1996), aff'd without opinion, 121 F.3d 708 (6th Cir.), reported in full, 1997-2 Trade Cas. (CCH) ¶ 71,863 (6th Cir. 1997).

^{32.} Id. at 1305–09 (outlining terms of the consent decree).

^{33.} Id. at 1296-97.

^{34.} For an overview of European competition law, see D.G. GOYDER, EC COMPETITION LAW 8–14 (2d ed. 1993); RICHARD WHISH, COMPETITION LAW 12–16 (3d ed. 1993). While there are important differences between American antitrust law and European competition law, there are also many similarities and the conceptual differences are sometimes more semantic than substantive. Increasingly, the law on both sides of the Atlantic is being informed by common sets of economic models and theories. See generally W.S. COMANOR ET AL., COMPETITION POLICY IN EUROPE AND NORTH AMERICA: ECONOMIC ISSUES AND INSTITUTIONS (1990) (comparing and contrasting European and North American institutions for antitrust enforcement and examining the increasing influence of economic theory on both sides of the Atlantic).

be constructed between them. The model of perfect competition for a single homogeneous good anchors one end of this continuum. 35 Anchoring the other end is the model explaining the behavior of a single product monopolist.³⁶ Bridging these two extremes and explaining the behavior of industries with small numbers of competitors (oligopolies) is the Cournot model of price/quantity competition.³⁷ The Cournot model predicts a direct relationship between the number of competitors in the market (level of competition) and how closely the market approximates the results of perfect competition. According to the model, the larger the number of firms, the more competitive the industry; conversely, the higher the level of economic concentration (the fewer the number of competitors), the closer the market will approximate the outcomes of a pure monopoly.³⁸ This framework underlies the structure-conduct-performance orientation of antitrust law and the corresponding reliance of the law upon market share data and concentration ratios to establish presumptions about the existence and effects of market power.³⁹

While this framework is powerful in terms of its simplicity, and hence its translatability into a coherent antitrust policy, the construct has substantial limitations. An essential assumption of these models is that the products of one firm are perfect substitutes for the products of another. This implies that there is no product differentiation and that firms do not engage in non-price competition. Traditional models are not well equipped to examine

^{35.} See Hovenkamp, Federal Antitrust Policy, supra note 3, at 3–8 (describing the model of perfect competition and outlining its assumptions). For discussions of the model of perfect competition in economic textbooks, see David M. Kreps, A Course in Microeconomic Theory 264–67 (1990) [hereinafter Kreps, Microeconomics]; Hal R. Varian, Intermediate Microeconomics: A Modern Approach 368–70 (1987) [hereinafter Varian, Intermediate]; Hal R. Varian, Microeconomic Analysis 82–85 (2d ed. 1984) [hereinafter Varian, Advanced].

^{36.} See Hovenkamp, Federal Antitrust Policy, supra note 3, at 12–14 (describing model of a single product monopoly and the effects of monopoly on price and output). For discussions of the model of single product monopoly in economic textbooks, see Kreps, Microeconomics, supra note 35, at 299–302; Varian, Intermediate, supra note 35, at 414–16; Varian, Advanced, supra note 35, at 79–81.

^{37.} See Hovenkamp, Federal Antitrust Policy, supra note 3, at 152–54 (outlining the Cournot model of quantity-based competition). For discussions of the model of Cournot quantity-based competition in economic textbooks, see Kreps, Microeconomics, supra note 35, at 326–28; Varian, Intermediate, supra note 35, at 447–51; Varian, Advanced, supra note 35, at 99–100.

^{38.} See authorities cited supra note 37.

^{39.} See HOVENKAMP, FEDERAL ANTITRUST POLICY, supra note 3, at 42–47 (describing the history, development, and criticisms of the structure-conduct-performance paradigm); see also Frank H. Easterbrook, The Limits of Antitrust, 63 Tex. L. Rev. 1, 19 n.36 (1984) (questioning the soundness of the structure-conduct-performance paradigm).

markets where quality competition dominates or where other forms of non-price competition are central concerns. 40 A more subtle point is that this antitrust framework applies well only if market behavior is consistent with the type of strategic interaction assumed in the models. 41 If actual market behavior resembles other forms of strategic interaction, such as a Bertrand bidding model, then the Cournot quantity framework can be misleading. 42 Similarly, the modern antitrust framework is of questionable utility if the continuum between perfect competition and pure monopoly is not seamless. Older theories of monopolistic competition and the more recent game theoretic literature cast substantial doubt on this assumption. 43 Finally, the static nature of these models makes them less useful in evaluating dynamic changes or in addressing issues such as the effects of market structure and strategic interaction on innovation, changes in productive technology, and changes in organizational form.44

A. Price Is Not a Perfect Proxy for Quality

Once the monopoly-Cournot-perfect competition framework is abandoned, economic models have little to offer with respect to

^{40.} See Thomas C. Arthur, The Costly Quest for Perfect Competition: Kodak and Nonstructural Market Power, 69 N.Y.U. L. Rev. 1, 33–36 (1994) (describing how most economic markets violate the assumption that all products are perfect substitutes and examining the reasons underlying product differentiation).

^{41.} See Interview with Economist Robert D. Willig, ANTITRUST, Spring 1997, at 11, 15 ("[T]he mode of interactive conduct among firms [can be] markedly more important to consumer welfare than market structure itself.") (statement of Robert Willig); see also Timothy J. Muris, Product Differentiation: Economics and Antitrust, 5 GEO. MASON L. REV. 303, 311 (1997) (noting that antitrust scholars should be more sensitive to the behavioral assumptions underlying the economic models that they invoke).

^{42.} See infra notes 118–20 and accompanying text (contrasting the assumptions and predictions of the Cournot and Bertrand models).

^{43.} See Edward Chamberlin, The Theory of Monopolistic Competition (1933); Herbert Hovenkamp, Antitrust Policy After Chicago, 84 Mich. L. Rev. 213, 224–26 (1985) (contrasting economic theories of monopolistic competition and its implications for antitrust policy with the economic theories of the neo-classical Chicago School and the game theory analysis of what Hovenkamp terms the "post-Chicago" school). For a discussion of monopolistic competition in the context of the health care industry, see Peter Hilsenrath, Monopolistic Competition and the Health Care Sector, 4 Health Servs. Mgmt. Res. 82 (1991).

^{44.} See Arthur, supra note 40, at 15–19 (discussing the tension between antitrust law's focus on static concepts such as allocative efficiency and dynamic concerns such as technological innovation); see also William J. Baumol & Janusz A. Ordover, Antitrust: Sources of Dynamic and Static Inefficiencies?, in Antitrust, Innovation, and Competitiveness 82 (Thomas M. Jorde & David J. Teece eds., 1992); Herbert Hovenkamp, Exclusive Joint Ventures and Antitrust Policy, 1995 COLUM. Bus. L. Rev. 1, 16–30.

non-price competition but indeterminacy, both in terms of welfare analysis (whether a specific result is desirable or undesirable) and in terms of the likely effect that market structure will have on market outcomes. Implicit in the economics of traditional antitrust law is a belief that price competition serves as an acceptable proxy for non-price competition. In the absence of a generally applicable theory of non-price competition, it is plausible to assert that antitrust law best protects quality by protecting price competition. Ostensibly, firms that engage in quality competition do so at some positive cost. Under competitive conditions, these higher costs should be reflected in higher prices. By preserving active price competition, the argument goes, the traditional antitrust framework indirectly protects a range of non-price competition as well.

In assessing this claim, it is helpful to distinguish between "vertical" and "horizontal" concepts of quality.⁴⁷ Vertical quality is premised on the idea that some products are objectively "better," so that competition involves the intensity of inputs or non-price attributes. This is a commonly held perspective in health services research, which often uses performance statistics like hospital mortality rates or staffing ratios as quality indicators. Horizontal measures of quality, by contrast, emphasize the provision of a range of product attributes to suit heterogeneous consumer preferences. This view is typical among economists, who assume that efficiency is most likely to be achieved when many options are available to consumers. For example, the current trend toward diversity among managed care organizations is a horizontal concept.

Vertical and horizontal conceptions of quality have different implications for price/quality tradeoffs. The argument that price competition is an effective proxy for non-price competition is most credible for vertical quality competition—competition between

^{45.} See supra notes 6–7 and accompanying text (discussing the effects of competition in traditional health care markets); see also infra notes 113–17 and accompanying text (discussing the indeterminacy of economic analysis of non-price competition more generally). The focus of antitrust law on price and its marginalization of issues of quality can be explained by the absence of comprehensive economic models governing non-price competition. Given the current state of economic understanding, it would be difficult to establish a single coherent antitrust policy governing all forms of non-price competition. Economic theory, however, can be useful in providing insights into non-price competition on an industry-by-industry basis.

^{46.} See Neil W. Averitt & Robert H. Lande, Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law, 65 Antitrust L.J. 713, 752 (1997) ("[P]rice competition will often serve as a reasonably good proxy for non-price competition.").

^{47. &}quot;Vertical" concepts of quality are consistent with the forms of price/quality differentiation discussed *supra* note 8. "Horizontal" concepts of quality are consistent with forms of quality/quality differentiation. *See id*.

firms based on the intensity of inputs-because weighing price against quality is relatively straightforward. The proxy notion is less persuasive when horizontal quality competition is the dominant concern, i.e., where firms compete by providing combinations of different quality attributes. Horizontal quality competition corresponds closely with forms of product differentiation. Once again, the welfare analysis becomes more complicated. If differentiation occurs in response to heterogeneous consumer preferences, then providing a range of different price/quality and quality/quality tradeoffs can be welfare enhancing. 48 Differentiation, however, can also be used to mute pressures for price competition by making products less than perfect substitutes. 49 In addition, differentiation can increase consumer search and information costs, and therefore can give individual producers a degree of market power over discrete sets of consumers.⁵⁰ In these cases, differentiation may reduce social welfare.

For example, health policy experts continue to struggle with the normative implications of standardizing insurance benefits. The theory of "managed competition" postulates that uncontrolled market forces will lead to suboptimal outcomes, which can be prevented through active sponsorship of insurance plans by expert intermediary organizations.⁵¹ A central component of managed competition is the creation of a standard benefits package. If insurers offer a standard package, the theory goes, differences in scope of coverage will not render plans non-comparable by individual purchasers in terms of cost (premium) or linear quality characteristics (measurable health outcomes, consumer satisfaction scores). In other words, managed competition consciously sacri-

^{48.} See Arthur, supra note 40, at 34–35 ("The variety of goods and services derived from product competition is far more valuable than its costs to allocative efficiency. The success of product differentiation as a business strategy rests entirely upon consumer preference. Consumers like variety. Tastes differ and few want the same choice day after day, even if it could be had a bit cheaper.").

^{49.} Quality differentiation can be used to avoid active price competition. If firms produce and sell identical products, there will be strong competitive pressures driving price to marginal costs and resulting in low or non-existent profits. The principle of "maximum differentiation" suggests that firms may provide higher or lower levels of quality simply in an effort to reduce price competition. See J. Jaskold Gabszewicz & J.F. Thisse, Price Competition, Quality and Income Disparities, 20 J. Econ. Theory 340 (1979); Avner Shaked & John Sutton, Relaxing Price Competition Through Product Differentiation, 49 Rev. Econ. Stud. 3 (1982).

^{50.} See Arthur, supra note 40, at 36 ("The problem of information gaps is exacerbated in markets for differentiated products. Buyers must now search not only for information as to sellers and their prices, but also for data on product quality and features.").

^{51.} See Alain C. Enthoven, The History and Principles of Managed Competition, HEALTH AFF., Supp. 1993, at 24 (outlining the history, theory, and rationale underlying proposals for managed competition).

fices the value to consumers of horizontal quality—broad choice between different types of benefit plans—in order to stimulate competition based on price and vertical quality.⁵²

On the other hand, a substantial subset of pro-competitive health reformers support "medical savings accounts" (MSAs), which give individual consumers broad, tax-subsidized choices among individual health care services, usually in conjunction with the purchase of bare-bones, "catastrophic" insurance.⁵³ MSAs are predicated on the assumption that price competition will be most vigorous if consumers comparison shop for individual, differentiated services. MSAs therefore attach considerable value to horizontal quality. As the managed competition and MSA debate illustrates, the effects of price and non-price competition depend critically on the broader parameters in which such competition takes place. The type of constraints that are placed on the market will determine the intensity and range of quality competition that will emerge. There are some instances where price can serve as a workable proxy for non-price concerns, but there are others where it cannot.

B. Judicial Responses to the Price-Quality Mismatch

At a conceptual level, courts understand the importance of protecting the integrity of non-price competition.⁵⁴ Unfortunately, while judges acknowledge the need to be sensitive to issues of quality, the law does not have a well-developed framework for addressing these concerns.⁵⁵ The most important judicial

^{52.} It has proved difficult to reach either economic or political consensus on the specifics of a standard benefits package. *See GLIED, supra* note 7, at 170–75 (describing standardization of benefits and the Clinton health plan).

^{53.} See Kenneth E. Thorpe, Medical Savings Accounts: Design and Policy Issues, HEALTH AFF., Fall 1995, at 295 (exploring the policy rationale and implications of medical savings accounts).

^{54.} See, e.g., Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 500 n.5 (1988) (recognizing that product standardization can hurt consumers by reducing consumer choice and decreasing quality competition); Competitive Telecomm. Ass'n v. FCC, 87 F.3d 522, 530 (D.C. Cir. 1996) ("The test of a competitive market is whether consumers are offered the lowest possible prices or more or better services.") (emphasis added); Town Sound & Custom Tops v. Chrysler Motors, 959 F.2d 468, 487 (3d Cir. 1992) ("In an uncompetitive market, however, buyers may be forced to pay more for the same package than they would have to pay in a competitive market (or, equivalently, to accept lesser quality for the same price).").

^{55.} See Averitt & Lande, supra note 46, at 750-51 ("In more ordinary antitrust cases, however, where the elimination of nonprice competition is not so obviously central to the violation, the enforcement agencies have sometimes tended to deemphasize this factor. For

accommodations come in the areas of market definition, the leeway given vertical non-price restraints under the rule of reason, and rules concerning judicial deference to legislative bodies under doctrines governing the implied repeal of antitrust law and state action immunity.

1. Market Definition—Courts tacitly acknowledge quality concerns when they define product markets to determine whether defendants possess market power. Markets are often defined more narrowly for highly differentiated products on the theory that consumers will not accept products with substantially different quality characteristics. One problem with this approach is that the "either/or" process of product classification fails to appreciate degrees of difference and can lead to judicial outcomes that are stark and discontinuous. If the court opts for a broad market definition, the relevance of the non-price concerns is frequently lost in the subsequent competitive analysis. If the court adopts a narrow market definition, then the non-price considerations may actually be given disproportionate weight.

In *United States v. Long Island Jewish Medical Center*,⁵⁷ the Department of Justice challenged a merger between the two largest hospitals in Nassau County, New York. Given the proximity of New York City, the government's case depended on defining a market

example, the conventional antitrust analysis under Section 7 of the Clayton Act concentrates almost exclusively on the price effects of a merger"); Douglas H. Ginsburg, Nonprice Competition, 38 ANTITRUST BULL. 83, 83 (1993) ("The role of nonprice competition has not received enough attention in antitrust analysis. Legal scholars and judges have occasionally acknowledged nonprice competition with a nod and perhaps even a kind word about the social utility of nonprice competition, but they quickly return to the more familiar subject of price competition."); Sullivan, supra note 10, at 776 ("It turns out, however, that the case law continues to place price at the core of competition analysis. The courts have little justification for continuing to use a theory that explains only one competitive variable merely because no single model or theory has yet been advanced which examines, explains, and predicts market behavior for every market. Reality dictates that nonprice motivations are relevant in interpreting and characterizing market behavior and ultimately for interpreting competition."). But see Kauper, supra note 23, at 277-80 (arguing that quality issues are important in medical antitrust cases and that courts have largely avoided dealing with such issues directly, but cautioning that such quality claims are inherently complex and may not be capable of adjudication in the courts).

^{56.} See Hovenkamp, Federal Antitrust Policy, supra note 3, at 91–96 (describing how product differentiation complicates the process of product definition and how some courts have responded); Thomas J. Campbell, Predation and Competition in Antitrust: The Case of Nonfungible Goods, 87 Colum. L. Rev. 1625, 1630–35 (1987) (examining the difficulties caused by product differentiation for market definition and the implications for antitrust analysis, with a particular focus on theories of predation); Thomas L. Greaney, Managed Competition, Integrated Delivery Systems and Antitrust, 79 Cornell L. Rev. 1507, 1537 (1994) (criticizing the DOJ-FTC policy statements for paying inadequate attention to the problem of product differentiation).

^{57. 983} F. Supp. 121 (E.D.N.Y. 1997).

that captured what it perceived as the merging entities' unique geographic and product-related characteristics. Therefore, the government proposed that the relevant market be limited to so-called "anchor hospitals"—nearby institutions with prestigious reputations and sophisticated facilities that the government claimed were indispensable to the success of any managed care network offering insurance to Nassau County residents. The court rejected this proposed product market definition, and the economic significance of the alleged "anchor" status of the hospitals was lost in the court's evaluation of the competitive effects of the merger.

Similarly, in Marshfield, 60 the court's rejection of an "HMO market" in favor of a general market for health care financing rendered moot any consideration of the range of possible managed care products and the scope economies or demand-side efficiencies that they might engender. 61 The Marshfield decision also factored non-price considerations into the determination of whether a "natural monopoly" defense existed to claims of monopolization, but did so again through the technique of product market definition. Dismissing the possibility that consumers in a rural area might be better served by having separate physician competitors rather than a single satellite of the defendant clinic. Judge Posner observed that "[t]welve physicians competing in a county would be competing to provide horse-and-buggy medicine."62 Modern, high-technology, specialized medicine likely required a single, integrated enterprise, the court concluded, in essence folding these quality attributes into the market definition and exculpating the defendant on that basis alone.

2. Vertical Restraints—Antitrust law makes another concession to quality concerns in the context of vertical non-price restraints such as exclusive dealerships and distribution agreements. Vertical non-price restraints are evaluated under the rule of reason and are

^{58.} See id. at 137.

^{59.} See id. at 140. But of. FTC v. Staples, Inc., 970 F. Supp. 1066, 1073 (D.D.C. 1997) (granting an injunction against a proposed merger based on evidence of market power in the market for "consumable office supplies [sold] through office superstores"). In the Staples case, the court overcame its "initial gut reaction" to define the market more broadly, id. at 1075, especially given that nearly 95% of consumable office supplies are sold by supermarkets and small stores, because of evidence that prices were significantly higher in areas where either Staples or Office Depot, but not both, did business. See id. at 1076–77.

^{60.} Blue Cross & Blue Shield United v. Marshfield Clinic, 65 F.3d 1406, 1406 (7th Cir. 1995), cert. denied, 516 U.S. 1184 (1996).

^{61.} See id. at 1410-12. For a critique of the court's product market definition see Sage, Antitrust Law and Managed Care, supra note 11, at 49-52.

^{62.} Marshfield Clinic, 65 F.3d at 1412.

not considered per se illegal.⁶³ This deference is premised on the assumed efficiency of decisions made by a single firm. If a manufacturer imposes non-price restraints on its dealers, such as territorial limitations, the manufacturer is assumed to be doing so to maximize the value of the branded product (although courts remain concerned about vertical restraints serving as a cover for what is actually a dealer cartel).⁶⁴ As long as there is sufficiently strong inter-brand competition, courts trust the manufacturer to make appropriate price/quality and quality/quality tradeoffs in response to consumer demand, empower manufacturers to implement those tradeoffs through a system of vertical non-price restraints, and assume that the manufacturer's choices will enhance consumer and social well-being (i.e., will be allocatively efficient).⁶⁵

Ironically, there may be good reason to second guess the appropriateness of some vertical non-price restraints in integrated health care markets. Firms providing health care services and financing may have incentives to systematically underprovide quality, 66 especially in situations where reductions in quality are less visible to consumers than outright denials of promised benefits. In this setting, simple deference to the assumed rationality of intra-firm price/quality tradeoffs may not be an optimal policy response. The critical empirical question is whether and under what circumstances inter-plan competition will effectively counteract inefficient intra-plan incentives.

^{63.} Under the rule of reason, vertical restraints are subjected to a case-by-case assessment to determine the economic impact that the restraint will have on competition. See Monsanto Co. v. Spray-Rite Servs., Corp., 465 U.S. 752, 762 (1984) ("In Sylvania we emphasized that the legality of arguably anticompetitive conduct should be judged primarily by its 'market impact.'"); Continental T.V., Inc. v. GTE Sylvania, Inc., 433 U.S. 36, 49 (1977) ("Under this rule, the factfinder weighs all of the circumstances of a case in deciding whether a restrictive practice should be prohibited as imposing an unreasonable restraint on competition.").

^{64.} See HOVENKAMP, FEDERAL ANTITRUST POLICY, supra note 3, at 395–99 (examining the concern that vertical restraints may be manifestation of dealer collusion).

^{65.} See Henry N. Butler & Barry D. Baysinger, Vertical Restraints of Trade as Contractual Integration: A Synthesis of Relational Contracting Theory, Transaction-Cost Economics, and Organization Theory, 32 Emory L.J. 1009, 1061-65 (1983) (examining the efficiency justifications and corresponding consumer benefits associated with vertical restraints); Thomas A. Piraino, Jr., The Case for Presuming the Legality of Quality Motivated Restrictions on Distribution, 63 NOTRE DAME L. Rev. 1, 19-23 (1988) (examining quality-based motives for vertical restraints).

^{66.} See Peter J. Hammer, Medical Antitrust Reform: Arrow, Coase and the Changing Structure of the Firm, in The Privatization of Health Care Reform (G. Bloche ed., forthcoming 2000) [hereinafter Hammer, Medical Antitrust Reform] (characterizing the emergence of managed care in terms of a Coasian transformation of the firms providing health care, and cautioning that integrated providers of health care financing and delivery may have substantial incentives to underprovide care).

3. Implied Repeal and the State Action Doctrine—While not specifically designed to address problems of quality and non-price competition, the implied repeal of the antitrust laws and the state action doctrine can remove entire industries or sets of issues from antitrust scrutiny. In industries where competition may be undesirable, legislative action can trump antitrust law and substitute regulation for market forces. When this occurs through federal legislation, courts term the outcome express or implied repeal of antitrust law. For example, some aspects of health insurance are exempt from antitrust oversight under the McCarran-Ferguson Act. Similarly, under the state action doctrine, state governments can elect to supersede competition in industries by clearly articulating and actively supervising an alternative regime. This immunity extends to private parties acting pursuant to the state mandate.

State action immunity is important in the health care industry. Since 1992, twenty states have enacted laws specifically designed to immunize hospitals, health professionals, or other health care enterprises from antitrust scrutiny. The first such law, enacted in Maine, specified "enhancement of quality" as the leading justification for granting a "certificate of public advantage," followed closely by preservation of access to services for "communities" (not consumers per se) and reduction of redundant capacity. State attorneys general have also entered into consent decrees with health care entities that promise non-price benefits or efficiency

^{67.} See HOVENKAMP, FEDERAL ANTITRUST POLICY, supra note 3, at 652 (discussing the doctrines of express and implied repeal of the antitrust laws).

^{68.} See, e.g., Union Labor Life Ins. Co. v. Pireno, 458 U.S. 119, 130–34 (1982); Group Life & Health Ins. Co. v. Royal Drug Co., 440 U.S. 205, 211–33 (1979) (identifying the policy relationship between insurer and insured, the spreading of risk, and practices limited to the insurance industry as indicia of the "business of insurance" exempt from antitrust scrutiny under the McCarran-Ferguson Act); see also Hovenkamp, Federal Antitrust Policy, supra note 3, at 663–69 (discussing the scope and operation of the McCarran-Ferguson Act).

^{69.} See California Retail Liquor Dealers Ass'n v. Midcal Aluminum Co., 445 U.S. 97, 105 (1980) (concluding that state action immunity will extend to private parties provided there is a clearly articulated and affirmatively expressed state policy to displace competition with regulation, and the private conduct is actively supervised by the state); see also HOVENKAMP, FEDERAL ANTITRUST POLICY, supra note 3, at 670–85 (examining the state action doctrine).

^{70.} See California Retail Liquor Dealers, 445 U.S. at 105.

^{71.} See Fred J. Hellinger, Antitrust Enforcement in the Healthcare Industry: The Expanding Scope of State Enforcement, 33 Health Servs. Res. 1477, 1480–86 (1998) (summarizing the recent activities of states that have attempted to exempt health care conduct from antitrust liability under the state action doctrine); see also United States General Accounting Office, Pub. No. HEHS-94-220, Health Care: Federal and State Antitrust Actions Concerning the Health Care Industry 10–13 (1994) (detailing the efforts of states to afford hospitals and other health care providers immunity under the state action doctrine).

^{72.} ME. REV. STAT. ANN. tit. 22, § 1883(2), (4)(A) (West Supp. 1998).

gains from mergers or joint ventures. These agreements usually contain provisions that limit price increases or profits or guarantee the pass-through of savings to consumers.⁷³

In summary, judges and legislatures have at their disposal a limited set of tools for incorporating quality concerns into antitrust policy in instances where price competition does not predict non-price competition. In two senses, however, these are only partial responses. First, they account for only a small portion of cases presenting significant non-price issues. Second, they are incompletely theorized, meaning that they do not connect with one another in a coherent manner. Improving on this situation requires a nuanced analysis of market failure in health care, to which we now turn.

III. CHALLENGES IN UNDERSTANDING QUALITY COMPETITION IN HEALTH CARE

Developing a framework to guide judicial assessments of non-price concerns under current law, or to assist legislators in formulating effective interventions, requires a clearer understanding of quality competition in health care markets. At its core, a competition policy for health care seeks answers to some very basic questions. What kind of health care do we as a society want? How much health care can we afford? How do we get it? The first question concerns health care goals. The second seeks normative benchmarks vis-a-vis other societal needs. The third implicates comparative institutional analysis and asks what combination of market and non-market mechanisms will give us what we desire. Traditional antitrust analysis assumes that private markets can provide self-contained answers to all of these questions, determining what type and how many services people

^{73.} See, e.g., United States v. Long Island Jewish Med. Ctr., 983 F. Supp. 121, 144 (1997) (commenting on the hospitals' agreement with the New York State Attorney General's Office not to raise prices for two years following the merger); see also FTC v. Butterworth Health Corp., 946 F. Supp. 1285, 1303–09 (W.D. Mich. 1996), aff'd without opinion 121 F.3d 708 (6th Cir.), reported in full, 1997-2 Trade Cas. (CCH) ¶ 71,863 (6th Cir. 1997) (imposing a federal consent decree having similar regulatory effects).

^{74.} Readers unfamiliar with health care may be frustrated by the number of issues identified in this Part and the complex interrelationships that are suggested. Readers familiar with health care may be frustrated by the brief and sometimes superficial treatment these complicated issues receive. Our intention at this point is to create a checklist of concerns and suggest a framework in which they can be evaluated. The research agenda outlined in Part IV will explore these topics in substantially greater detail.

want, how much they are willing to pay, and how those services should be provided.

This section questions the core assumptions of the antitrust framework as applied to health care markets. Are health care markets allocatively efficient? What is the actual relationship between market structure and market outcomes in health care? What is the nature of the underlying strategic interaction among health care providers, payers, and consumers? This section also considers various issues that must be addressed in order to derive meaningful answers to these questions. These factors include the effects of buyer concentration, the prevalence of private medical insurance, the effects of state licensure and professional self-regulation, and dynamic efficiency concerns such as the importance of health care institutions being "adaptable" and capable of innovation.

A. Allocative Efficiency and Market Failure

As noted earlier, antitrust laws assume that competitive markets are allocatively efficient. This assumption implies that markets will determine the appropriate prices for medical services, the appropriate tradeoffs between price and quality, and the appropriate tradeoffs among different quality attributes. However, failures endemic in health care markets make it necessary to seriously question this assumption. Historically, actual or perceived market failure made medical services an unlikely candidate for competition. Although competition arrived nonetheless, market failures persist and remain core justifications for government intervention. Three related failures and the regulatory measures that purport to address them are particularly important to an analysis of competitive conditions: imperfect information, failures of agency, and the consequences of insurance.

^{75.} In 1975, Clark Havighurst and Jim Blumstein discussed the central issues facing health care policymakers in terms of allocative efficiency and explored the many reasons why resources may be misallocated in the health care sector. See Clark C. Havighurst & James F. Blumstein, Coping with Quality/Cost Trade-Offs in Medical Care: The Role of PSROs, 70 Nw. U. L. Rev. 6, 9–11 (1975). Twenty-five years later, we are struggling with the same basic issues in trying to forge appropriate price/quality tradeoffs in the "No Man's Land" of medical care. See id. at 15–20.

^{76.} See Kenneth J. Arrow, Uncertainty and the Welfare Economics of Medical Care, 53 Am. Econ. Rev. 941 (1963) (evaluating medical markets in terms of market failures and characterizing health care's distinctive non-market institutions as society's efforts to overcome the consequences of the underlying failures); Greaney, supra note 56, at 1509–13 (discussing the market failures affecting health care).

As a threshold matter, the existence of imperfections does not require the abandonment of the market prescription. Some market failures can be addressed by private conduct that would be permissible under the antitrust laws. Other market failures may justify targeted government interventions designed to make markets work more effectively so that private forces can achieve efficient outcomes. Still, it is conceivable that failures may be so severe that governmental action to displace some or all private market decisions would be called for. The difficulties involved in supplementing or replacing private markets, however, should not be underestimated. To do so successfully, policymakers must determine the type and amount of health care to provide, as well as the financial commitments to support it, with reference to some benchmark other than the observed market equilibrium. These are daunting social and political issues to resolve.

B. Information and Consumer Protection

Information deficits and asymmetries exist at nearly every interface of the health care system, and affect consumers choosing health coverage, insurers arranging services, patients seeking care, and health professionals selecting treatment. These asymmetries undermine the ability of buyers to monitor the competence of sellers and uncover fraud, so that there will always be a need for oversight and standard-setting in health care. What form this intervention takes, however, is highly contestable. Historically, imbalances of information justified tight professional control over the provision of medical services. This professional paradigm encouraged uniform standards, strict limits on who can and cannot practice medicine, and deference to self-regulatory bodies.

By contrast, a market paradigm encourages competition, easier access for sellers, and the primacy of consumer choice. Disclosure would be favored over exclusion. A market paradigm would also move away from licensing and towards accreditation, as part of a larger shift from externally imposed uniform standards to systems of tiered or minimum standards. Finally, a market paradigm would potentially transform professional self-regulation, encouraging

^{77.} See William M. Sage, Regulating Through Information: Disclosure Laws and American Health Care, 99 COLUM. L. REV. 1701, 1716–20 (1999) [hereinafter Sage, Regulating Through Information].

^{78.} See generally GLIED, supra note 7, at 17-35 (contrasting the perspectives and approaches of the "medicalists" and the "marketists").

greater competition between self-regulatory bodies and standardsetting groups.⁷⁹ The challenge in developing a competition policy is to anticipate these tensions and establish a workable balance between spheres of market and professional control.

Regulation adopted to mitigate informational market failures can influence quality competition.80 Many price/quality tradeoffs are simply foreclosed because licensure laws, accreditation practices, certification requirements, malpractice standards of care, and other minimum quality standards enacted to protect consumers truncate the range of acceptable quality options. Additionally, courts interpreting insurance contracts may not honor price/quality tradeoffs made in advance of illness because of perceived unfairness when illness strikes, limiting the ability of private parties to ration resources through credible contractual pre-commitments.81 Marketing restrictions imposed to discourage risk-selection or reduce fraud may further limit information and decrease product differentiation. Even regulation designed to cure informational market failure may impose indirect burdens on quality competition. For example, newly enacted laws that require disclosure of performance on identified quality measures tend to channel competition into the areas selected for reporting.82 In addition, compliance with regulations may be complex, costly, and time-consuming, favoring large, established organizations and discouraging new market entrants.

^{79.} See Peter J. Hammer, Price and Quality Competition in Health Care Markets: The Comparative Institutional Case Against an Antitrust Exemption for Medical Self-Regulatory Entities, in ACHIEVING QUALITY IN MANAGED CARE: THE ROLE OF LAW 123, 142 (John D. Blum ed., 1997) [hereinafter Hammer, Price and Quality Competition].

^{80.} Professional self-regulation that restricts private advertising may also be justified as a response to technical complexity, patient vulnerability, and similar factors that heighten the risk of misleading the public. Unlike direct government regulation, however, collective private activity must survive antitrust scrutiny. *Compare* Bates v. State Bar, 433 U.S. 350, 377 (1977) (finding ban on price advertising anticompetitive), with California Dental Ass'n v. FTC, 119 S. Ct. 1604, 1617–18 (1999) (holding "quick look" analysis of advertising restrictions inappropriate).

^{81.} See CLARK C. HAVIGHURST, HEALTH CARE CHOICES: PRIVATE CONTRACTS AS INSTRUMENTS OF HEALTH REFORM 13–28, 137–53 (1995) (criticizing the current underutilization of contracts as a means of privately allocating health care resources and advocating a greater role for contracts as a means of effectuating health care choices); Mark A. Hall & Gerard F. Anderson, Health Insurers' Assessment of Medical Necessity, 140 U. Pa. L. Rev. 1637, 1651–62 (1992) (examining the judicial tendency to decide coverage cases in favor of the insured and exploring the social costs involved in precluding these types of private ex ante commitments).

^{82.} See Sage, Regulating Through Information, supra note 77, at 1716-23.

C. Agency Issues and Purchasing Power

In part because of information problems, but also as the result of risk-pooling and the complexity of producing health services, patients rely on a series of agents and intermediaries in purchasing health coverage, including health care professionals, insurers, employers, and government. The organization of purchasing power creates opportunities and dangers for non-price competition. Many health care purchasing decisions are aggregated above the level of the individual consumer. Employers often arrange for the health care benefits of their employees. Private third-party payers increasingly engage in selective contracting and negotiate rates of compensation and terms of service on behalf of their insureds. Perhaps most significantly, the federal Medicare program pays for approximately one-fifth of all medical services supplied in the country. 83

A competition policy predicated upon sophisticated group purchasing is likely to be more effective than a competition policy predicated on decentralized individual decisions. Pooling consumers into large groups counteracts a number of the incentive and information problems facing individual patients. While the individual patient is unlikely to act as the perfectly informed consumer assumed in neoclassical economic models, a purchasing cooperative or an employer purchasing on behalf of its employees is capable of making consistent, rational choices. Collective purchasers may also internalize enough of the benefits of investing in information to justify the expense, and collective purchasers can gather information more cheaply over time by learning from the experiences of the entire covered population. Finally, groups of private purchasers can collectively assess and measure quality attributes, as is occurring through National Committee for Quality Assurance ("NCQA") accreditation and the newly constituted National Forum for Health Care Quality Measurement and Reporting.84

At the same time, the proliferation of intermediaries creates a variety of agency problems. At the individual level, providers do

^{83.} See Sheila Smith et al., The Next Ten Years of Health Spending: What Does the Future Hold?, HEALTH AFF., Sept.-Oct. 1998, at 128, 129.

^{84.} See John K. Iglehart, The National Committee for Quality Assurance, 335 New Eng. J. Med. 995, 995–99 (1996) (explaining the background, purpose, and function of the NCQA); Tracy Miller & Sheila Leatherman, The National Quality Forum: A "Me-Too" or a Breakthrough in Quality Measurement and Reporting?, HEALTH AFF., Nov.-Dec. 1999, at 233 (describing the organization and mission of the Health Care Quality Forum).

not truly stand in the shoes of patients. At the collective level, employers and insurers may incompletely aggregate or convey the preferences of plan beneficiaries; and trustees of community hospitals may not fully represent communities themselves. Agency relationships can reduce price competition and impair efficiency by presenting opportunities for self-dealing. But their influence on non-price issues and price-quality tradeoffs can be even greater, if not so insidious. All of these interactions, and their regulation through contractual or fiduciary oversight, affect quality competition by filtering underlying preferences. Predictably, courts have been unclear, and sometimes uneasy, about the identity of the health care "consumer." In *California Dental Ass'n*, for example, even Justice Breyer's strongly pro-competition dissent equated "consumer" with "patient," and failed to grasp the importance of purchasing intermediaries to effective competition.

Furthermore, antitrust law tends to treat buyers more leniently than sellers.⁸⁷ Deference to purchasers can be problematic when buyers are agents who re-sell to end users. This fact has not gone unnoticed. Most-favored-customer clauses in large health insurers' contracts with providers are coming under increased scrutiny because of concerns over barriers to competitive entry at the insurer level.⁸⁸ Concentration of economic power on the purchasing side

^{85.} Although discussions of physician agency usually emphasize the importance of patient autonomy and the danger of financial conflicts of interest, the physician-patient relationship and the physician's role in society are complex. See generally Carl E. Schneider, The Practice of Autonomy: Doctors, Patients, and Medical Decisions (1998) (critiquing simplistic views of autonomy); William M. Sage, Physicians as Advocates, 35 Hous. L. Rev. 1529 (1999) (arguing that physicians cannot be patient advocates in a lawyer's sense of the term).

^{86.} See California Dental Ass'n v. FTC, 119 S. Ct. 1604, 1623 (1999) (claiming that "consumers are relatively indifferent" to the opportunity for insurers to review the necessity of treatment); see also FTC v. Butterworth Health Corp., 946 F. Supp. 1285, 1299–1300 (W.D. Mich. 1996), aff'd without opinion 121 F.3d 708 (6th Cir.), reported in full, 1997-2 Trade Cas. (CCH) ¶ 71,863 (6th Cir. 1997) (questioning whether managed care organizations were "consumers" for the purpose of antitrust analysis).

^{87.} See, e.g., Kartell v. Blue Shield, Inc., 749 F.2d 922, 927-29 (1st Cir. 1984) (upholding fixed prices for physician services by a state's largest insurer on the grounds that it constituted rational purchasing). For a general discussion of the antitrust issues raised by cooperative buying in health care markets, see Clark C. Havighurst, Antitrust Issues in the Joint Purchasing of Health Care, 1995 UTAH L. REV. 409.

^{88.} See, e.g., United States v. Delta Dental, 943 F. Supp. 172 (D.R.I. 1996) (denying Delta Dental's motion to dismiss and holding that the government's complaint alleging that Delta Dental's most-favored-customer clause constituted an unlawful restraint on trade stated a valid cause of action). But see Blue Cross & Blue Shield United v. Marshfield Clinic, 65 F.3d 1406, 1415 (7th Cir. 1995) (upholding most-favored-customer clauses as "standard devices by which buyers to try bargain for low prices"). See also Jonathan B. Baker, Vertical Restraints with Horizontal Consequences: Competitive Effects of "Most-Favored-Customer" Clauses, 64

(monopsony power) is an additional concern. The model of perfect competition not only assumes that the number of sellers is so large that the actions of individual producers are unable to affect market price, it imposes similar limitations on the influence of buyers. Consumer monopsony can lead to economic distortions similar to those of producer monopoly. A monopsonist facing competitive suppliers will ordinarily depress input prices, which will cause a suboptimal level of production. 89

The fact that the largest health care purchaser in the country is a public entity raises issues of political science, as well as economics. Despite its size, Medicare has seldom if ever acted as a monopsonist. Health care providers have substantial input into federal regulatory and policymaking processes, and regulatory capture by physician and hospital lobbies—often rationalized by those providers as necessary to cross-subsidize charity care—explains many of Medicare's early practices. For example, generous physician payment based on "usual, customary, and reasonable" fees, as well as a promise that government would not interfere with clinical decisions, were part of Medicare's original political bargain in

ANTITRUST L.J. 517 (1996) (examining the reasons why some most-favored-customers clauses may have anticompetitive effects).

^{89.} For discussions of the general economic effects of monopsony, see HOVENKAMP, FEDERAL ANTITRUST POLICY, supra note 3, at 14–16; Roger D. Blair & Jeffrey L. Harrison, Antitrust Policy and Monopsony, 76 CORNELL L. Rev. 297, 301–06 (1991); Roger D. Blair & Jeffrey L. Harrison, Public Policy: Cooperative Buying, Monopsony Power, and Antitrust Policy, 86 Nw. U. L. Rev. 331, 334–36 (1992). For an examination of how courts have dealt with the issue of monopsony power in health care markets, see Andrew Ruskin, Unbridled Managed Care: When Consumers Experience Antitrust Welfare Loss from Exclusionary Contracts Between HMO Insurers and Health Care Providers, 6 HEALTH MATRIX 391, 457–60 (1996). Interestingly, the welfare implications of a monopsonist facing a monopolist (an example of countervailing economic power) are often indeterminate. See PHILLIP AREEDA & LOUIS KAPLOW, ANTITRUST ANALYSIS: PROBLEMS, TEXT, AND CASES 173 n.27, 200 n.51 (5th ed. 1997). A monopsonist confronting sellers with market power may or may not lead to a strictly less efficient set of prices and output.

^{90.} See generally Bruce C. Vladeck, The Political Economy of Medicare, HEALTH AFF., Jan.—Feb. 1999, at 22 (examining the political economy of Medicare in terms of redistributive, interest-group, and distributive politics).

^{91.} Even in the market for kidney dialysis, where Medicare is a true "single-payer," it has been unusually generous in fees and policies. See MEDICARE PAYMENT ADVISORY COMMISSION, supra note 8, at 130–34 (recommending increases in payment for outpatient dialysis services); Norman G. Levinsky & Richard A. Rettig, The Medicare End-Stage Renal Disease Program: A Report from the Institute of Medicine, 324 New Eng. J. Med. 1143, 1148 (1991) (recommending continued payment increases to account for the effects of inflation). By contrast, physician payment under Medicaid, the joint federal-state health insurance program for the indigent, has been so consistently below market levels that many physicians limit or refuse Medicaid patients, which is easier for most to do than would be the case with Medicare patients.

1965, 92 and have taken decades to erode. Hospitals were paid on a cost-plus basis, with separate capital cost reimbursement and other add-ons, for most of the first two decades of Medicare's existence. Furthermore, Medicare was designed to replicate private insurance arrangements, and therefore allows private subcontractors, called intermediaries (in Medicare Part A) and carriers (in Part B), substantial discretion when making coverage and payment decisions, which arguably undercuts the solidarity of its purchasing decisions. 93

In recent years, rapid growth in program expenditures combined with cost constraints in public budgets and the long-term prospect of an aging population have helped Medicare regain cost-consciousness. Prospective payment for hospitals under the DRG program, rationalized reimbursement of physicians under RBRVS, risk-adjusted payment to Medicare HMOs, and aggressive investigation and prosecution of perceived fraud and abuse are the primary weapons of today's Medicare cost-cutters. Done can only hope that these important but narrow perspectives can give way to a broader vision of competition as a vehicle to restructure Medicare and medical markets.

There are a number of creative possibilities. Medicare policies and regulations could help facilitate more competitive practices industry-wide. ⁹⁶ The government might consciously exercise influence and control through its monopsony power in lieu of more

^{92.} See 42 U.S.C. § 1395(b), (f) (1982). A telling statistic is that physician fees in the first three years of the Medicare program—1965, 1966, and 1967—rose at a sharply greater rate compared to the Consumer Price Index than at any previous time, suggesting that what was "usual and customary" depended on who was paying the bills. See William M. Sage, Drug Product Liability and Health Care Delivery Systems, 40 STAN. L. REV. 989, 997 n.41 (1988).

^{93.} See U.S. General Accounting Office, Pub. No. T-PEMD-94-17, Medicare Part B: Inconsistent Denial Rates for Medical Necessity Across Six Carriers 13-14 (1994).

^{94.} See Charles N. Kahn III & Hanns Kuttner, Budget Bills and Medicare Policy: The Politics of the BBA, HEALTH AFF., Jan.-Feb. 1999, at 37.

^{95.} Diagnosis-Related Groups (DRGs) pay hospitals a fixed amount for each admission based on the patient's diagnosis rather than reimbursing billed charges for each service rendered, while the Resource-Based Relative Value Scale (RBRVS) ties physician payment to a schedule based on time, intensity, and other objective factors, rather than customary fees. See Barry R. Furrow et al., Health Law 844–61 (3d ed. 1997) (discussing Medicare payment methodologies); John K. Iglehart, Interview—Bringing Forth Medicare+Choice: HCFA's Robert A. Berenson, Health Aff., Jan.—Feb. 1999, at 144 (outlining current Medicare payment policies and exploring issues raised by Medicare's experiments with managed care models).

^{96.} For example, the Clinton administration recently announced a proposal for Medicare restructuring that would implement competitive bidding in both fee-for-service and managed care Medicare, and otherwise look to market mechanisms to obtain savings. See Robert Pear, Clinton Lays Out Plan to Overhaul Medicare System, N.Y. TIMES, June 30, 1999, at A1; see also Robert Pear, Clinton Proposes a Discount System on Medicare Costs, N.Y. TIMES, Oct. 18, 1999, at A1.

traditional forms of regulation. The Health Care Financing Administration might more actively cooperate with DOJ and FTC in the formation and implementation of a competition policy. Finally, the political debates over the future of Medicare might provide a forum for establishing some of the allocative efficiency benchmarks normally provided by a well-functioning market, such as identifying appropriate ranges of price/quality and quality/quality tradeoffs, as well as defining goals for total system performance.

D. Effects of Insurance

The prevalence of private insurance is a defining characteristic of health care markets and has been for the past 50 years. Private insurance introduces a number of complicating factors for competitive analysis. Insurance raises problems of moral hazard by insulating consumers from the costs of their consumption decisions. In addition, insurance forces price/quality tradeoffs to be made far in advance of illness. Insurance also may limit product differentiation because of concerns about adverse selection.⁹⁷

As with information market failure, regulation enacted in response to insurance can influence competition as much as insurance itself. Understanding the competitive implications of insurance regulation presents a challenge. To begin with, numerous actors are involved. The sale of insurance is regulated by separate insurance departments in each of the fifty states. The federal government has insulated self-insured ERISA plans from this patchwork system of regulation, introducing questions of

^{97.} Certain quality attributes may selectively attract higher-risk individuals, reducing profit in insurance pools where products cannot be costlessly repriced. The ability of insurers to manipulate benefit design in order to attract favorable risk pools is well-established. Compulsory sports medicine benefits and other features that are used only by those who lead active lifestyles will not appeal to the chronically ill. Even pre-packaged dental coverage can have a risk-selecting purpose, because people with teeth tend to be younger and healthier than those without. Conversely, hospitals that have developed high-quality AIDS units and other costly services may not advertise those services aggressively for fear of having their prepaid products (or charitable reserves) overwhelmed by high-risk patients.

^{98.} See Allison Overbay & Mark Hall, Insurance Regulation of Providers That Bear Risk, 22 Am. J.L. & Med. 361, 379-83 (1996) (discussing system of state regulation of medical insurance).

^{99.} See id. at 379-83 (discussing federal ERISA preemption of state health insurance regulation).

state and federal relations into the discussion. Lurking in the background is the longstanding McCarran-Ferguson exemption from federal antitrust laws for the business of insurance. 101

Complicating issues is the threshold question of whether HMOs and other organizations that arrange prepaid health care are engaged in the business of insurance. For example, must a physician group offering its services on a capitated basis comply with insurance regulation?¹⁰² States have taken varying positions, as has the federal government, with respect to physician networks contracting for Medicare business.¹⁰³

The integration of health care financing with delivery of services that defines managed care magnifies the competitive importance of insurance regulation. A cornerstone of insurance regulation is protection of carrier solvency, so that funds are available to pay claims. However, the principal devices used to accomplish this may be in tension with efforts to provide consumers maximum choice and to cultivate effective competition in the provision of medical services. For example, rate regulation prevents price discounting, high reserve requirements create barriers to market entry for new competitors, and guaranty funds may encourage risktaking by assuring a bailout package if risks materialize.

Moreover, health care organizations that bear insurance risk as well as provide services can "compete" on either basis. For example, an insurance policy that is "medically underwritten," meaning that its price, scope, and availability are based on the health of the potential enrollee, can be a smart purchase for a healthy individual

^{100.} See generally Margaret G. Farrell, ERISA Preemption and Regulation of Managed Care: The Case for Managed Federalism, 23 Am. J.L. & Med. 251 (1997) (discussing the federalism questions raised by federal and state actions in health care).

^{101.} See generally authorities cited supra note 68.

^{102.} See Overbay & Hall, supra note 98, at 383–86 (summarizing state approaches to the regulation of provider groups assuming financial risk for managed care business); see also Margo P. Kelly, State Insurance Regulation of Provider-Sponsored Organizations, HEALTHCARE FIN. MGMT., July 1997, at 44, 44–46 (same).

^{103.} In the Balanced Budget Act of 1997, Congress established the Medicare+Choice Program. See Pub. L. No. 105-33, 111 Stat. 251 (1997) (codified as amended in scattered sections of 42 U.S.C. (1998)). Among other things, the program establishes a process under which provider-sponsored organizations can apply to the Department of Health and Human Services for a "waiver" of state insurance licensing requirements. See 42 U.S.C. § 1395w-25(2) (1998). For a discussion of the Medicare+Choice Program and a summary of its waiver provisions, see James J. Unland, The Range of Provider/Insurer Configurations, J. Health Care Fin., Winter 1998, at 1, 3–5.

^{104.} See id. at 89-90.

^{105.} See ROBERT H. JERRY, II, UNDERSTANDING INSURANCE LAW 85 (2d ed. 1996) ("[T]he larger objectives of insurance regulation are to prevent destructive competition, compensate for inadequate information, relieve unequal bargaining power, and assist consumers incapable of rationally acting in their best interests.").

and an effective safeguard against adverse selection for the insurer. However, if one believes that the major objective of competition in health care should be to reduce inefficiencies in health care delivery, it becomes problematic that "competing" health plans may prosper just as easily by carefully selecting healthier enrollees as by improving the services they provide. 107

In addition, differentiated insurance packages that offer a wide range of choices with respect to price and scope of coverage conflict with regulatory policies favoring access to affordable health insurance through "community rating." If one believes that the implicit subsidy of the sick by the healthy is desirable, then one would oppose greater product differentiation in insurance markets. This discussion is further complicated by the fact that there may be some level of differentiation below which the risk pools necessary to maintain a workable insurance market would themselves be threatened. Ito

Insurance therefore raises difficult but not intractable problems for competition, most of which consist of grasping interconnections among relevant issues. Rather than make decisions regarding insurance regulation in isolation, an effective competition policy would seek to make policies affecting the insurance aspects of medical services with a clear sense of broader competitive and health care goals.

^{106.} See id. at 429.

^{107.} Recent attention has focused on governmental "risk-adjustment" of premium payments to blunt insurer incentives to select risks while preserving competition on the basis of service provision. However, the technical feasibility of this approach is still open to question. See Sandra Shewry et al., Risk Adjustment: The Missing Piece of Market Competition, HEALTH AFF., Spring 1996, at 171, 173–79 (examining the risk adjustment efforts of the Health Insurance Plan of California (HIPC)).

^{108.} See JERRY, supra note 105, at 424–29; see also Deborah A. Stone, The Struggle for the Soul of Health Insurance, 18 J. HEALTH POL. POL'Y & L. 287 (1993) (distinguishing social solidarity visions of insurance from private risk-reduction).

^{109.} For an extensive discussion of the distributional concerns raised by increased use of risk-based insurance pricing, see GLIED, *supra* note 7, at 122–56, which examines how different insurance pricing practices accomplish redistribution from the healthy to the sick, the young to the old, and the rich to the poor.

^{110.} New York state's community rating law has not resulted in the adverse selection "death spiral" and massive uninsurance predicted by its critics, but younger, healthier individuals have shifted from generous, indemnity-based insurance products to more restrictive HMOs. See Thomas Buchmueller & John Dinardo, Did Community Rating Induce an Adverse Selection Death Spiral: Evidence from New York, Pennsylvania, and Connecticut (National Bureau of Econ. Research Working Paper No. 6872, 1999).

E. The Relationship Between Market Structure and Market Outcome

Traditional antitrust policy is predicated on the assumption that market power (as measured by market share) is associated with higher prices and lower levels of quality. This belief, together with the assumption that competitive markets provide the appropriate benchmark for establishing efficient price/quality and quality/quality determinations, justifies many common antitrust prohibitions: mergers creating excessive levels of economic concentration; monopoly power used in a predatory or exclusionary manner; and agreements between horizontal competitors that interfere with independent determinations of price, territory, and product characteristics. Antitrust policy becomes indeterminate if it is unclear either what types of price/quality and quality/quality tradeoffs are desirable, or what effect different market structures will have on price and quality outcomes.

In health care, it is difficult to make predictions about the effects of market power and competition on variables such as price, quality, and variety. As stated earlier, under different sets of assumptions, credible scenarios can be constructed where competition in health care markets can provide too much (or little) quality and/or too much (or little) product differentiation. When price is fixed and firms compete exclusively in terms of quality, a race model is likely to dominate where firms provide high but uniform levels of quality. By contrast, when firms compete in terms of both price and quality, a range of different price/quality combinations is likely to emerge. 115

^{111.} See supra notes 3-5 and accompanying text (outlining antitrust rules and prohibitions).

^{112.} Cf. supra notes 35–39 and accompanying text (outlining the basic monopoly-Cournot-perfect competition framework with its unambiguous predictions for antitrust policy). Even without considering quality, the relationship between market power and allocative efficiency is more complex in health care than in many other sectors. For example, one can debate whether reduced output from seller monopoly in health care may be efficiency-enhancing if it counteracts overuse of services resulting from insurance. See Martin Gaynor et al., Are Invisible Hands Good Hands? Moral Hazard, Competition, and the Second Best in Health Care Markets (National Bureau of Econ. Research Working Paper No. 6865, 1998) (concluding that competitive insurance markets would check any such effect from imperfectly competitive health care markets). Factoring in non-price considerations, however, makes this type of generalization even more suspect.

^{113.} See supra notes 48–50 and accompanying text (discussing the indeterminate welfare effects of product differentiation).

^{114.} See Hammer, Price and Quality Competition, supra note 79, at 132-33.

^{115.} See id. at 126 ("Traditional markets are characterized by minimal price competition, which has the effect of encouraging intense non-price competition but minimal quality

Competition under traditional systems of fee-for-service reimbursement coupled with passive third-party payment arguably produced more quality competition than was socially desirable. Ironically, while yielding excessive levels of vertical quality, these same economic forces unduly restricted the range of horizontal quality differentiation and consumer choice. Under modern systems of pre-payment, however, competition focusing predominantly on price may result in suboptimal levels of quality because of information asymmetries, agency issues, and similar considerations. The fact that alternative economic models can be constructed to contradict many of the above scenarios serves only to underscore the radical nature of the indeterminacy once the anchors of the simple monopoly-Cournot-perfect competition framework are abandoned. ¹¹⁷

Modeling the market structure-market outcome relationship will require a more complete understanding of the types of strategic interaction that are taking place in health care markets. Different economic models make different assumptions about how market players interact. Not surprisingly, these models provide very different predictions about the impact of market structure on considerations such as price, quantity, and quality. For example, the classic Cournot model assumes that firms independently and simultaneously select the level of output each will produce, operating under the belief that their actions will have no impact on the equilibrium actions of their competitors. In the end, the

differentiation; whereas emerging health care markets create the opportunity for active price competition, which will result in less intense incentives for non-price competition but greater levels of quality differentiation.").

^{116.} See Hammer, Questioning Traditional Antitrust Presumptions, supra note 16 (discussing the economic factors motivating non-price competition in traditional health care markets). For surveys of studies examining the relationship between non-price competition and market structure, see Frederic J. Entin et al., Hospital Collaboration: The Need for an Appropriate Antitrust Policy, 29 Wake Forest L. Rev. 107, 153–67 (1994); Paul A. Pautler & Michael G. Vita, Hospital Market Structure, Hospital Competition and Consumer Welfare: What Can the Evidence Tell Us?, 10 J. Contemp. Health L. & Pol'v 117 (1994); Peter J. Hammer, Mergers, Market Power and Competition: An Economic and Legal Evaluation of Hospital Mergers 22–27 (1993) (unpublished Ph.D. dissertation, University of Michigan) (on file with author) [hereinafter Hammer, Mergers, Market Power & Competition]; see also supra notes 6–7 and accompanying text (discussing non-price competition in traditional health care markets).

^{117.} For example, if one focuses on product differentiation, there are scenarios where market power can lead a monopolist to provide either too great (or too limited) a range of price/quality and quality/quality combinations. See generally Eytan Sheshinski, Price, Quality and Quantity Regulation in Monopoly Situations, 43 Economica 127 (1976); A. Michael Spence, Monopoly, Quality, and Regulation, 6 Bell. J. Econ. 417 (1975).

^{118.} See Hovenkamp, Federal Antitrust Policy, supra note 3, at 152–54; Kreps, Microeconomics, supra note 35, at 326–28; Jean Tirole, The Theory of Industrial Organization 217–21 (1988); Varian, Intermediate, supra note 35, at 447–58. For a dis-

aggregate level of industry output determines the market price. The Bertrand model of price competition, on the other hand, assumes that firms independently and simultaneously submit price bids and that market demand is allocated to the lowest bidder, who is then obligated to supply the entire quantity demanded at the winning price. The Cournot model predicts that industry price and profits will ultimately be determined by the number of firms in the industry—larger numbers of firms will be associated with lower prices and higher levels of output. The Bertrand model, on the other hand, predicts that as few as two firms can produce a price-equals-marginal-cost "competitive" equilibrium, so long as each firm has the capacity to supply the entire market.

If market interaction fits well into the Cournot model, then antitrust policy should focus on market shares and economic concentration as a means of producing lower prices and higher levels of output. This is descriptive of most contemporary antitrust policy and doctrine. If market interaction fits into a Bertrand model, however, then antitrust law and policy should be more concerned about rules preserving the integrity of the bidding process. Instead of focusing on market share as an indication of market power, moreover, analysis should focus on the existence of productive capacity sufficient to make a bidding model work.

Some forms of quality competition can be modeled in a framework that is very similar to the Cournot price/quantity model. A

cussion of the Cournot model in the context of hospital competition, see Hammer, *Medical Antitrust Reform, supra* note 66, at 38–40.

^{119.} See Kreps, Microeconomics, supra note 35, at 330–35; Tirole, supra note 118, at 209–12; Varian, Intermediate, supra note 35, at 461–62. For a discussion of the Bertrand model in the context of hospital competition, see Hammer, Medical Antitrust Reform, supra note 66, at 38.

^{120.} See Hammer, Medical Antitrust Reform, supra note 66, at 38. Excess capacity is an essential assumption of the Bertrand model, and can be realistically applied to many health care markets in the short term. In fact, much of the success of managed care in containing costs can be attributed to aggressive negotiation of price-volume tradeoffs in connection with selective contracting, something that could only occur because of an abundance of hopitals and physicians. Whether redundant capacity is sensible over the long term is an important policy question. For discussion of inventory theory in health care, see Linda U. Green & Vizh Nguyen, Strategies for Cutting Hospital Beds: The Impact on Patient Service, 35 HEALTH SERV. RES. (forthcoming 2000) (examining the impact of size, variability in length of stay, demand, and other factors on delays in the availability of hospital beds).

^{121.} See Hammer, Questioning Traditional Antitrust Presumptions, supra note 16 (discussing reliance of antitrust law on categorical rules and market share presumptions).

^{122.} See Hammer, Mergers, Market Power & Competition, supra note 116, at 300-01 (exploring the concept of Bertrand market power in the context of hospitals bidding for selective contracts); see also Richard N. Langlois, Contract, Competition, and Efficiency, 55 BROOKLYN L. Rev. 831, 839-42 (1989) (arguing that market power should be understood not in terms of the structural model of perfect or Cournot competition, but rather in terms of transaction costs and as a problem of private ordering).

model of Cournot-type vertical quality competition under conditions of fixed price can be developed that is symmetrical to the traditional model of Cournot price/quantity competition under conditions of fixed quality. 128 This model establishes a link between market structure and the intensity of non-price competition: the more diffuse the market, the greater the level of quality; conversely, the more concentrated the market, the lower the level of quality that will be provided. While this model is able to salvage the market structure linkage assumed by antitrust law, it is unable (by itself) to establish the efficiency of the resulting equilibrium. Competition in this model may still provide too much or too little quality.¹²⁴ Alone, the model is unable to provide clear policy recommendations. Instead, courts and policymakers need a new framework with which to analyze the implications of various market structures on quality, and therefore to understand the welfare impact of proposed market changes. 125

As applied to health care markets, it is important to determine the appropriate range of strategic variables with which market participants compete. This can be accomplished by finding answers to the following empirical questions: Are providers making strategic decisions regarding productive capacity and level of output? Are providers competing in terms of price? Is price competition manifested in terms of competitive bidding? Are providers competing in terms of the quality of services provided? Do providers compete in terms of efforts to provide greater absolute levels of particular

^{123.} See Hammer, Mergers, Market Power & Competition, supra note 116, at 103–18 (developing an economic model of hospital non-price competition in traditionally structured health care markets).

^{124.} Most of the models of non-price competition in the economics literature use reduced form demand functions, where the non-price variable simply appears as an argument in the demand function that has the effect of increasing either market or firm-specific demand. These demand functions are not derived from consumer utility and therefore cannot be employed to assess relative consumer valuations of the non-price attribute. See Hammer, Mergers, Market Power & Competition, supra note 116, at 90–91; TIROLE, supra note 118, at 102–04.

^{125.} Although not developed in the literature, one can envision a Bertrand-type model of non-price competition under conditions of fixed prices. Two producers with capacity to supply the entire market would submit bids identifying the quality levels at which each would sell. Buyers would select the highest quality offered and sellers would be required to honor their bids. In equilibrium, both sellers would bid a level of quality such that their marginal costs (inclusive of the quality component) would equal the fixed price. Again, under the restrictive Bertrand assumptions, as few as two producers would be able to duplicate the competitive non-price equilibrium identified by George Stigler. See Stigler, supra note 9. Non-price competition in this model functions to transform producer surplus into consumer surplus in the form of higher quality. This scenario corresponds to forms of non-price competition observed in some Medicare managed care markets. See discussion supra note 7.

quality considerations, or do providers compete in terms of offering consciously different arrays of quality attributes or price/quality combinations? After the range of strategic variables is identified, is it necessary to ask whether providers operate independently or cooperatively? Are all providers roughly the same size? Are there identifiable patterns of leader/follower behavior? What types of events trigger changes in market price and quality offerings?

Public purchasers have grappled with many of these questions as they assess the pros and cons of competitive bidding models for managed care, either by allowing single contractors to serve all beneficiaries, or by encouraging broad participation but paying a fixed premium derived from the amounts bid. For example, California's transition plan to mandatory managed care for its Medi-Cal program solicited county-wide bids, but allowed beneficiaries a choice between the lowest commercial bidder and a "local initiative" of non-profit community providers. Against continued political opposition, Medicare is launching its third pilot project involving competitive bids, with HMOs receiving from the Health Care Financing Administration a median or weighted average of the bids received and either providing extra benefits or charging enrollees higher premiums to the extent their bids diverge from the government's contribution. 127

Many considerations come into play in making these decisions. High turnover in health plan membership at annual enrollment periods can have adverse consequences for patients in terms of continuity of care, and can significantly dilute incentives for health plans to invest in preventive care or early treatment. Moreover, established organizations often entrench themselves economically and politically, commanding supracompetitive prices and imposing large exit costs on the system. These problems could be substantially reduced by an improved bidding structure. Redundant capacity is a related concern, the desirability of which can vary according to the competitive model that is adopted. Excess capacity can be viewed as either an inefficient waste of resources, or as an

^{126.} See U.S. GENERAL ACCOUNTING OFFICE, PUB. NO. HEHS-95-87, MEDICAID MANAGED CARE: MORE COMPETITION AND OVERSIGHT WOULD IMPROVE CALIFORNIA'S EXPANSION PLAN (1995) (outlining California's plan to make its Medi-Cal program mandatory to reduce unnecessary services and increase efficiency of care).

^{127.} See Geri Aston, Groups Fight Medicare HMO Pricing Project, Am. MED. NEWS, Apr. 13, 1999, at 1. As noted above, the Clinton administration recently proposed competitive bidding for fee-for-service Medicare as well, particularly in connection with technologically sophisticated procedures that may be more effective when performed in experienced institutions. See Pear, supra note 96.

essential component for making bidding models work effectively. Among other things, capacity is important to society because of the potential for public emergencies and the fact that nearly twenty percent of Americans lack health insurance and depend on charity care in cases of significant illness.¹²⁸

F. Innovation and Dynamic Efficiency

There are tensions between static and dynamic understandings of efficiency. Antitrust law not only assumes that competitive markets will be allocatively efficient, but that innovation and the dissemination of new productive technologies are best mediated through decentralized, non-cooperative, profit-motivated private interaction. Static economic models assume a well-defined set of existing production possibilities. The nature of technological change, however, is to redefine these possibilities, which will necessarily engender a new market equilibrium. A competition policy in health care, as in other regulated industries where technology matters, requires a structured approach to innovation as a quality concern.

Although categories will blur on the edges, it is useful to distinguish among (i) the introduction of completely new health care technology; (ii) the introduction of a new way of arranging service provision given existing health care technology (e.g., a new practice protocol or a new combination of physician and non-physician services); and (iii) the introduction of a new organizational form or contractual arrangement for the delivery of health care services (a change in the underlying makeup of the firm such as the integration of financing and delivery of services). Innovations are taking place in each of these categories. Some can be evaluated within a traditional partial equilibrium framework, as suggested by Oliver Williamson.¹²⁹ Williamson postulated a change in technology that substantially enhances productive efficiency but necessitates the restructuring of the industry into a monopoly.¹³⁰ To assess the

^{128.} See Robert Pear, Government Lags in Steps to Widen Health Coverage, N.Y. TIMES, Aug. 9, 1998, at A1 (noting that since 1992 the number of uninsured rose from 37 million to 41 million, despite a prolonged period of economic prosperity).

^{129.} See generally Oliver E. Williamson, Economies as an Antitrust Defense: The Welfare Tradeoffs, 58 Am. Econ. Rev. 18 (1968) [hereinafter Williamson, Welfare Tradeoffs]; Oliver E. Williamson, Economies as an Antitrust Defense Revisited, 125 U. Pa. L. Rev. 699 (1977) [hereinafter Williamson, Economies Revisited].

^{130.} See Williamson, Welfare Tradeoffs, supra note 129, at 21-23; Williamson, Etonomies Revisited, supra note 129, at 706-09.

desirability of such changes, he proposed balancing the dead-weight loss of monopoly (reductions in allocative efficiency) against the increased productive efficiency stemming from the new technology. Unfortunately, other aspects of dynamic efficiency are less amenable to partial equilibrium analysis. "Adaptability," for example, is often a desirable institutional trait, but is not a characteristic that fits neatly into an evaluative framework. Still, assessing the capacity of different systems to respond over time to a changing health care environment should play an important part in striking the balance between market and non-market institutions.

Some lessons can be learned from other industries. In 1998, for example, the only two remaining large American defense contractors called off their proposed merger in light of continued opposition from DOJ. 132 Although the companies argued that a defense monopoly could not affect price or compliance with design specifications, since both were set by the federal government, DOJ remained concerned that the merged company would have less incentive to innovate than would two competitive enterprises. 188 This situation has parallels in health care, which is also characterized by large government purchasers administrative pricing. Similarly, a dynamic view of quality can affect assessments of appropriate price-quality tradeoffs. Health care providers frequently argue that high levels of reimbursement are necessary to protect quality of care. However, experience in the airline industry shows that setting high prices through regulation does not necessarily guarantee higher quality if one considers the potential for organizational innovation. When fares and routes were deregulated in the late 1970s, competition led carriers to

^{131.} See Hammer, Price and Quality Competition, supra note 79, at 140–41 (discussing importance of "adaptability" as a concern in choosing between the market paradigm and the professional paradigm in emerging health care markets).

^{132.} See Damian Kemp, Lockheed Martin Quits Merger Bid After Opposition, Jane's Defence Weekly, July 22, 1998, at 4 (referring to DOJ's commitment to pursue legal action if Lockheed Martin followed through with its \$8.3 billion planned purchase of Northrop Grumann).

^{133.} The DOJ challenged the proposed merger between Lockheed Martin and Northrop Grumman largely due to the perceived effect of the merger on subsequent research and development. See Press Conference with Attorney General Janet Reno and Secretary of Defense William Cohen, Fed. News Serv., Mar. 23, 1998, available in LEXIS, News Library, Federal News Service File (quoting the Attorney General: "[i]t would cost taxpayers more and take the competitive wind out of the sails of innovation in the production of many critical systems that protect our fighting men and women around the world."). For a discussion of innovation markets more generally and of issues raised in earlier defense industry mergers, see Lawrence B. Landman, Did Congress Actually Create Innovation Markets?, 13 Berkeley Tech. L.J. 721, 794–95 (1998).

reorganize into "hub-and-spoke" systems that were much more cost-effective than traditional point-to-point service, and allowed more frequent departure times. ¹³⁴ Antitrust enforcement agencies and the architects of any competition policy in health care markets must be sensitive to these types of concerns.

G. Welfare Analysis and Non-Economic Objectives

In light of the redistributive potential of various competitive outcomes, and the social imperatives underlying health policy, it is important to specify in greater detail than is typical in antitrust cases the metric for welfare analysis that should be used. Two distinct sets of questions are raised. First, what welfare standard should antitrust courts adopt to evaluate the competitive effects of alleged restraints of trade? Second, what welfare standard should policymakers assert in structuring a competition policy that defines the boundaries between market and non-market institutions and mediates between economic and non-economic objectives in health care?

The welfare standard antitrust courts employ is not always clear. Many courts believe that the purpose of antitrust law is to maximize some vision of consumer surplus, meaning that efficiency gains from mergers are recognized only if they are passed on to consumers and that other benefits are legitimate only to the extent that paying customers value them. A total welfare standard, by contrast, would permit antitrust courts to consider a broader range of economic factors, such as the potential for practices to increase producer surplus (profits), or the social gains that can be derived from diverting resources out of health care and into higher-valued sectors of the economy (improved allocative efficiency). 158

^{134.} See W. KIP VISCUSI ET AL., ECONOMICS OF REGULATION AND ANTITRUST 583–86 (1995) (arguing that the hub-and-spoke system has increased airline quality, but acknowledging that the increased number of flight departure times must be balanced against longer travel times and an increased number of transfers).

^{135.} For a discussion of the confusion that exists in contemporary antitrust law over the appropriate welfare standard, see Hammer, *Questioning Traditional Antitrust Presumptions*, supra note 16.

^{136. &}quot;Consumer surplus" represents the difference between what individual consumers would be willing to pay for a product or service and the amount that they actually do pay. When prices are raised and consumers are forced to pay more, there is a reduction in consumer surplus. For a more detailed discussion of consumer surplus in antitrust cases, see *id*.

^{137.} See id. (discussing the "passing on" requirement in merger cases).

^{138.} Total welfare represents the sum of consumer surplus and producer surplus (profits). A total welfare standard would permit any merger or restraint of trade that resulted in a net increase in total welfare. Theoretically, this would include situations where a

Some critics would argue that even the broader total welfare antitrust standard is overly restrictive in scope. A total welfare standard is still limited to economic considerations—non-economic social values carry no doctrinal weight. 139 Nonetheless, openly noncompetitive priorities exist in health care with respect to equality of access to services, and social responsibility for the causes and consequences of illness. 140 For example, health care experts may well contend that certain conduct that might otherwise be considered "anticompetitive" might still be socially beneficial because it supports the cross-subsidization of care for the uninsured or otherwise helps fulfill the equitable obligations of the medical profession, non-profit health facilities, and society as a whole, even if those benefits do not flow directly to consumers.¹⁴¹ Although one could invoke older antitrust theories for support of a potentially broad range of non-economic goals that antitrust laws could pursue, such claims do not find a comfortable home under contemporary doctrine.

Developing a welfare standard that permits discussion of conflicting economic and non-economic objectives in health care will be an essential component of establishing a suitable competition policy. Among other things, how these tensions are resolved will help define the boundaries of the health care

merger lead to a reduction in consumer surplus, so long as the reduction in consumer surplus was more than offset by the increase in producer profits. A total welfare standard would not require the benefits of merger to be "passed on" to consumers. For a more detailed discussion of the total welfare standard in antitrust cases see *id*.

^{139.} See id. (contrasting the intra-economic focus of the total welfare standard with possible regimes of extra-economic analysis and arguing that antitrust law should be limited to an intra-economic orientation).

^{140.} More general arguments are resurfacing that the health care system is incapable of fulfilling its greater social goals through competitive processes. See Thomas Rice, The Economics of Health Reconsidered 22–54 (1998) (detailing problems with the market theory of competition and its implications for health policy). For example, the U.S. lags many developed nations in basic health indicators such as life expectancy and infant mortality, even though it spends a much higher percentage of GDP on health care. See GLIED, supranote 7, at 92–93 (observing that only in life expectancy at age 80 does America's technologic capacity yield clear public health dividends). Any attempt to redirect the market from generating medical care to generating actual health would require a nonmarket framework.

Some physicians question the notion that "consumer" is an appropriate label for patients, maintaining instead that provision of care should be determined by professional medical assessment of therapeutic benefit, which would preclude many price/quality tradeoffs entirely. See David U. Himmelstein & Steffie Woolhandler, A National Health Program for the United States: A Physician's Proposal, 320 New Eng. J. Med. 102, 103 (1989) (advocating the adoption of a Canadian-style health care system where all citizens would be entitled to benefits as defined by a single public payer).

^{142.} This task includes examining aspects of current health care regulation designed to further noncompetitive goals, such as community rating laws, tax subsidies and entitlements, for their effects on quality competition and price/quality tradeoffs.

marketplace and clarify the role of non-market institutions. An important point, however, is that employing a broader understanding of social welfare to create a balanced competition policy does not necessarily imply that antitrust courts should incorporate similar concerns into their internal welfare analysis. The district court decision in *Butterworth* illustrates the dangers of antitrust courts not maintaining a clear distinction between economic and non-economic analysis.

Butterworth involved a merger of the two largest hospitals in Grand Rapids, Michigan, which would have been presumed to be unlawful and anticompetitive under traditional antitrust standards. 143 Over the objection of the FTC, the court approved the merger based on the hospitals' acceptance of a consent decree.¹⁴⁴ Rather than setting forth conditions under which competition could thrive, however, the consent decree constituted a thinly veiled effort at health care regulation through judicial mandate. Furthermore, the court's order reflects a decidedly non-market approach to antitrust law. For example, the court dismissed the importance of price discounts negotiated by managed care organizations, observing that such "selective price advantages are hardly the sort of benefit the antitrust laws are designed to protect." The court also incorporated into the consent decree a "Commitment to the Undeserved," representing an effort to ensure that economic gains derived from the merger would be shared in some sense with the broader community—whether or not they were paying customers. 146

Butterworth is noteworthy because it represents a direct challenge to contemporary antitrust understandings of total welfare and highlights the need for a more explicit articulation of the standards that should guide antitrust decision making. In the absence of such standards, the benefits of competition may be lost without any commensurate gains, and the formation of health care policy could be relegated to the whims of individual district court judges. Once a competition policy is established and the proper

^{143.} FTC v. Butterworth Health Corp., 946 F. Supp. 1285, 1294 (W.D. Mich. 1996), aff'd without opinion 121 F.3d 708 (6th Cir.), reported in full, 1997-2 Trade Cas. (CCH) ¶ 71,863 (6th Cir. 1997) (acknowledging that the market share analysis established a prima facie case of illegality).

^{144.} See id. at 1303-09 (outlining terms of the consent decree).

^{145.} Id. at 1299.

^{146.} See id. at 1306-07.

^{147.} Even if one is sympathetic to the views of the district court in *Butterworth*, defining a workable competition policy that could effectively accomplish those aims should be done at a broader system-wide level and not on a random market-by-market basis. It is noteworthy that the district court opinion was affirmed by the Sixth Circuit under an abuse of discretion

role of markets is defined (reflecting appropriate extra-economic objectives), therefore, it may well make sense for courts to police the functioning of such markets under a more narrowly construed understanding of economic welfare.

IV. THE ROAD TO A COMPETITION POLICY: A RESEARCH AGENDA

While the research agenda outlined here does not attempt to answer all of the questions raised in this Article, it does seek to take the initial steps towards formulating a competition policy. Our research plan has four stages: first, devise a taxonomy with a clear, systematic vocabulary for describing the quality dimensions of competition; second, assemble a database of quality issues that have arisen in health care antitrust disputes and assess the ways in which they have been analyzed and resolved; third, using the taxonomy and the results of the legal analysis, conduct structured interviews to determine how buyers, sellers, and the antitrust enforcement agencies view health care quality and its role in the competitive marketplace; and, finally, analyze the regulatory infrastructure of health care, apart from antitrust law, with respect to its capacity to promote quality objectives and facilitate appropriate price/quality tradeoffs. The objective of this analysis is to identify current features of health care regulation that impede quality competition, examine what additional regulatory interventions might facilitate such competition, and isolate areas where quality competition is unlikely to be effective and where society might instead choose to employ measures that reflect a nonmarket paradigm.

A. Taxonomy of Quality Competition

Antitrust law seldom deals explicitly with quality and has never done so in a systematic or rigorous fashion. ¹⁴⁸ In particular, antitrust law has only recently been called upon to assume a central

standard, the welfare standard employed not being sufficiently explicit to attract the notice of the appellate court. See FTC v. Butterworth Health Corp., 121 F.3d 708 (6th Cir.), reported in full, 1997-2 Trade Cas. (CCH) ¶ 71,863 (6th Cir. 1997).

^{148.} See supra note 55 and accompanying text (discussing the price myopia of contemporary antitrust law).

role in industries where quality issues are as important as they are in health care. 149 Our first task is therefore to construct a taxonomy for quality competition, which will be used to create a coding system for a database of health care antitrust disputes that incorporate quality issues, as well as to structure subsequent interviews with regulators, industry participants, and the public. We will accomplish this by reviewing the legal, economic and health policy literature, and by engaging in informal discussions with policy experts, scholars, and legal practitioners. Building this taxonomy will require examining industries other than health care, particularly those where substantial information asymmetries exist, where quality is an important but difficult to observe aspect of the product, where risks exist to health and safety, or where uniform quality standards conflict with pressures for greater horizontal differentiation. These are likely to include other professional services, such as law, accounting, and engineering; technology, such as computers, software, and telecommunications; and common but hazardous goods, such as automobiles.

Health services research and health policy research have developed an extensive literature on quality.¹⁵⁰ In addition, several studies have assessed non-price competition and price/quality tradeoffs in health care, particularly for acute care hospitals.¹⁵¹ A few of these efforts have matched quality dimensions to competitive behavior; for example, by proposing or testing the hypothesis that hospital mergers lower costs by reducing quality competition.¹⁵² However, no previous study has attempted to determine the

^{149.} See supra notes 10–11 and accompanying text (examining the need for antitrust law to better address issues of quality and non-price competition in medical markets).

^{150.} See, e.g., HAROLD S. LUFT, HEALTH MAINTENANCE ORGANIZATIONS: DIMENSIONS OF PERFORMANCE 208–50 (1987) (comprehensive discussion of the different efforts to characterize and measure health care quality in terms of structure, process, and outcomes based measures); Avedis Donabedian, Quality, Cost, and Clinical Decisions, 468 Annals Am. Acad. Pol. & Soc. Sci. 196, 200–02 (1983) (contrasting absolutist definitions of quality with social definitions of quality that seek to balance individual benefits with social and individual costs); Robert H. Miller & Harold S. Luft, Managed Care Plan Performance Since 1980: A Literature Analysis, 271 JAMA 1512, 1516–18 (1994) (evaluating studies comparing the performance of managed care plans and traditional indemnity plans on a variety of process and outcomes measures of quality).

^{151.} See FRECH, supra note 6, at 42–43 (examining evidence concerning the relationship between economic concentration and non-price competition in hospital markets); Harold S. Luft, et. al, Does Quality Influence Choice of Hospital?, 263 JAMA 2899, 2901–03 (1990) (examining the role of quality—defined in terms of teaching versus non-teaching status, referrals and transfers, and various outcomes measures—on patient choice of hospital).

^{152.} See Barton H. Hamilton & Vivian Ho, Hospital Mergers and Acquisitions: Does Market Consolidation Harm Patients? (1998) (working paper, John M. Olin School of Business, Washington University) (on file with author) (finding that hospital mergers have reduced length of stay and increased readmission rates in some cases); Hammer, Mergers,

compatibility of quality metrics with the promotion of competition through antitrust enforcement.

Table 1 lists potential dimensions of quality that emerge from a brief review of the health services, economics, and antitrust literature, and represents a starting point for developing a standardized vocabulary. Among other things, the mixture of "vertical" and "horizontal" interpretations of quality is noteworthy.

TABLE 1
Possible Attributes of Quality Competition

Insurers/HMOs	Hospitals/Physicians
Access to specialized care	Amenities
Credentials of health professionals	Compassion and trustworthiness
Ease of plan administration	Credentials
Flexibility of plan design/number of options	Duration of treatment
Freedom of choice among health providers	Familiarity/length of relationship
Geographic coverage	Good works/provision of charity care
Nonprofit status/provider control	Location
Patient information/education	Nonprofit status
Performance (process and outcome)	Performance (process and outcome)
Range of health professions covered	Potential for quality improvement
Reputation	Reputation
Stability/reliability	Safety
Scope of covered benefits	Staffing intensity
Treatment of life-threatening illness Treatment capacity	Technology

The meaning of quality depends critically on who is being asked and in what context. As Table 1 illustrates, the quality components valued by consumers will differ with respect to their assessment of their insurance needs versus the medical services actually received or anticipated. Important quality dimensions for insurance include the scope of covered benefits, the financial reliability and reserves of the payer, freedom of choice among providers, and ease of accessing both routine and specialized care. Quality dimensions of hospital and physician services reflect concerns over credentials, reputation, performance, and outcome. How these different

Market Power & Competition, *supra* note 116, at 161–230 (describing case studies of the effects of hospital mergers in four different communities on various measures of price and quality).

aspects of quality should be assessed in isolation, and in the context of an integrated package of health care financing and services, presents a number of challenges.

B. Quality Issues in Health Care Antitrust Litigation

This phase of the project will identify, examine, and analyze quality-related issues that have arisen in health care antitrust litigation. To reduce selection bias, we will locate not only disputes that have resulted in published judicial decisions, but the larger pool of situations in which potentially anticompetitive conduct has attracted the attention of DOJ or FTC personnel. For each case, we will determine the parties and claims, the market conduct at issue, the evidence presented, the legal standards and arguments, and the disposition. We will code our findings using the taxonomy and vocabulary developed in the first phase of the project. We are interested in court cases brought under the federal antitrust laws, administrative orders issued by the FTC, and consent decrees entered in formal settlement of claims from 1985 through 1999. We are also interested in examining closing letters issued in investigations where complaints were not filed by DOJ or FTC, business review letters issued by the two agencies, and other public documents during the same time period. We will conduct a similar, but less comprehensive, review of the enforcement activities of state attorneys general under state antitrust laws, which will cover the same time period but which will be limited to formal decisions, orders, and decrees available from on-line sources.

Using this process, we will compile a database of health care antitrust disputes that involve quality concerns. Coded data will enable us to measure the frequency and outcome of specific quality issues, such as standardization, consumer choice, reputation, performance, and innovation. We will also subject cases to legal analysis to assess whether the federal enforcement agencies and the courts are intervening when they should not, or failing to intervene when they should, as well as how disputes and doctrines have changed over time. For example, it may be possible to determine the impact of the Statements of Antitrust Enforcement Policy in Health Care issued in 1996 by DOJ and FTC, which permit quality-driven clinical integration to substitute for financial risk-sharing in physician networks. In combination with our examination of the perspectives and procedures of DOJ and FTC, case data should allow us to make qualitative observations about

differences in approach between the enforcement agencies and the courts and to identify institutional barriers to effective antitrust oversight of quality competition.

C. Government, Industry, and Public Perspectives on Quality Competition

The third segment of our research moves from theoretical and historical constructs to current market participants and regulators. The objectives of this part are twofold: to learn what views of quality motivate federal antitrust enforcement and actual competitive behavior in the marketplace, and to determine whether public officials and private actors, such as health care providers and insurers, and health care purchasers and consumers, are speaking the same language when they assert the importance of competing on quality. Because we will focus specifically on the relationship between market preferences and antitrust enforcement, the details of our method will depend to some degree on the results of the theoretical work and case review.

We will begin by conducting structured interviews with officials, staff attorneys, and economists at DOJ and FTC. These interviews will help us understand how the two agencies approach issues of quality, and will guide our subsequent assessment of actual markets. Interviews will address the agencies' (i) perspectives on the goals of antitrust law; (ii) use of economic theory and economists; (iii) general perceptions of health care markets; (iv) presumptions regarding quality competition and price/quality tradeoffs; (v) methods of selecting cases for investigation; (vi) investigative techniques in specific cases; and (vii) assessment of quality-based efficiencies in decisions to permit or challenge particular conduct.

These interviews should add considerably to existing information about the role of antitrust enforcement in health care. To our knowledge, there are no formal documents, public or non-public, that guide agency investigations; rather, individual staff attorneys and economists pursue inquiries according to current interests and priorities. Limited studies exist of the enforcement agencies' overall investigative methods and analytical approaches, including an extensive review of DOJ conducted by the General Accounting Office. However, that study failed to identify

^{153.} See U.S. GENERAL ACCOUNTING OFFICE, PUB. NO. GGD-91-2, JUSTICE DEPARTMENT: CHANGES IN ANTITRUST ENFORCEMENT POLICIES AND ACTIVITIES 4-5 (1990) (evaluating

non-price issues as important to any of the approximately 150 merger investigations it reviewed.¹⁵⁴

Our next step will be to interview buyers and sellers of health care, focusing on large employers, insurance companies, HMOs, hospitals, and physician groups. Since our results will be qualitative, we will not attempt a random sample but will obtain the cooperation of representative organizations. Examples of the types of topics to be addressed are listed in Table 2. For employers, we will talk to benefits managers, senior executives, and financial officers. For insurers, HMOs, hospitals and physician groups, we will interview senior operational and financial management, marketing directors, and, as appropriate, product managers, medical directors or department heads, and senior clinicians.

We will attempt to include in our sample organizations that operate in multiple geographic areas, in order to determine how their behavior and strategies vary from place to place. We will take advantage of recent antitrust enforcement activity to discuss actual transactions as well as hypothetical situations. To supplement the self-reported information obtained in our interviews, we will also attempt to assess revealed preferences regarding quality. For example, we will perform content analysis of advertising and marketing material, and examine publicly available information on purchasing decisions and consumer complaints. In addition, we will consult public use files from other databases if they contain relevant information, such as the Community Tracking Study Physician Survey Instrument developed by the Center for Studying Health System Change.

changes in the Antitrust Division's enforcement actions, particularly as it affects mergers, the Division's use of economics to set enforcement policies, and the impact of budget cuts on antitrust enforcement activities).

^{154.} See Ginsburg, supra note 55, at 93.

TABLE 2
TOPICS FOR MARKET INTERVIEWS

BUYERS	SELLERS
Definition and ranking of	Objective functions
quality preferences	
Role of quality in decision making	Choice of profit/nonprofit status
Ranking of quality attributes	Financial goals
Price/quality tradeoffs	Professional goals
Tradeoffs among quality attributes	Social goals
Heterogeneity of preferences	
Implementation strategies for	Perceptions of buyers'
quality objectives	priorities
Buyer characteristics	Nature of negotiations
Perception of current market options	Ranking buyers' quality concerns
Price/search/negotiation strategies	Estimating price/quality sensitivity
Acceptability of substitution in market	
Price sensitivity of substitution	
Opinions regarding specific	Competitive strategies
seller practices	and perceptions
Contracting practices	Geographic and product markets
Cost controls	Degree of product differentiation
Provider autonomy/incentives	Strategic planning
Integration and consolidation	Joint conduct
Joint conduct	Integration and consolidation
Revealed preferences	Revealed preferences
regarding quality	regarding quality
Information gathering	Organizational characteristics
Purchasing decisions	Products and services offered
Monitoring practices	Cost controls and incentives
Consumer education efforts	Recent organizational changes
Complaints and their resolution	Marketing and advertising

With respect to buyers of health care services, we are particularly interested in their definitions of quality and their rankings of various quality attributes. We want to better understand the role of quality in their decision-making processes, the tradeoffs they are willing to make between price and quality concerns, and the strategies they employ in implementing their quality-based objectives. To assess the likely pro- and anti-competitive effects of questionable conduct, the antitrust enforcement agencies often ask buyers their perceptions of seller behavior. In this same mode, we will ask buyers their impressions of sellers' contracting practices, costs controls and incentive devices, joint conduct, and integration.

A different set of questions will be asked of sellers. Many of these questions will attempt to shed light on the nature of the strategic interaction occurring in health care markets. What objective function are sellers pursuing? What are sellers' financial and professional goals? What are their perceptions of the relevant product and geographic markets? What level and type of product differentiation do they engage in? What are their perceptions of buyer priorities and the role of quality concerns in buyer purchasing decisions? What types of negotiation, marketing, and advertising practices do they engage in?

End-users of medical services—individual consumers and patients—are seldom consulted by DOI or FTC unless they are represented by organized advocacy groups. We plan to conduct focus groups to obtain information about aspects of quality that individuals consider important,155 to compare their views to those of their purchasing agents, and to determine if antitrust enforcement appropriately takes their concerns into account. Who the "buyers" are in the health care system is an important determinant in assessing the risk of anticompetitive conduct. In FTC's recent challenge to a hospital acquisition in Poplar Bluff, Missouri, conflicting evidence was introduced regarding the ability of the defendant to raise prices, depending on whether insurers or individual patients were surveyed. Focus group discussions will also elucidate the relationship between conceptions of quality and experience with various forms of health care financing and delivery, as well as the effects of uncertainty and transition on individual decision making.

D. The Regulatory Environment and Implications for Quality Competition

Finally, we will work toward a theoretically sound, textured model of quality competition that integrates antitrust oversight with health care regulation. This phase of the project will require systematic examination of a wide range of regulatory practices, par-

^{155.} There is a growing acknowledgment of the importance of incorporating consumer perspectives of quality in the formation of health care quality. See generally Paul D. Cleary & Susan Edgman-Levitan, Health Care Quality: Incorporating Consumer Perspectives, 278 JAMA 1608 (1997).

^{156.} See FTC v. Tenet Healthcare Corp., 17 F. Supp. 2d 937, 943–45 (E.D. Mo. 1998), rev'd 186 F.3d 1045 (8th Cir. 1999) (describing the statistical evidence of possible price changes).

ticularly the policies and practices of the Health Care Financing Administration (HCFA). Although HCFA is the largest purchaser of physician and hospital services nationally, and plays a growing role in managed care, it does not currently take positions on health care competition or communicate views on particular practices or transactions to DOJ and FTC. HCFA has refrained from doing so in part because its system of administrative pricing shields it from the price effects of competitive changes. Nonetheless, the interaction between HCFA's regulations and prevailing competitive conditions can influence global quality, which affects Medicare and Medicaid beneficiaries, as well as the price/quality tradeoffs available generally in the marketplace. Our research should allow us to assess the competitive implications of Medicare and Medicaid policies and to suggest guidelines for cooperation between HCFA and the antitrust enforcement agencies.

This last phase of our work will attempt to reach normative conclusions about the balance between antitrust enforcement and substantive regulation in promoting both quality competition and quality. We expect that our research into case law, the enforcement strategies of DOJ and FTC, and industry and consumer preferences will reveal problems with applying antitrust law to health care quality, including doctrinal limitations, institutional constraints affecting the legal system, and failures of the private marketplace. For example, a conceptually coherent approach to quality competition may require abandoning some of the simplifying assumptions that currently anchor antitrust law and economics. Our ultimate goal is a balanced competition policy which would combine changes in antitrust doctrine with supplemental regulation to facilitate the functioning of private markets, while identifying areas where competitive markets should yield to nonmarket solutions in the pursuit of quality.

Conclusion

Health care policy relies increasingly on private economic activity to allocate social resources within the health care sector, and between health care and other parts of the economy. As a result,

^{157.} See David Dranove & William D. White, Medicaid-Dependent Hospitals and Their Patients: How Have They Fared?, 33 HEALTH SERV. Res. 163, 177 (1998) (arguing that the public good aspects of some quality dimensions mean that decisions concerning the Medicare and Medicaid programs will have consequences for consumers of health care more generally).

market forces are being called upon to establish the price of medical care and its quality (non-price) dimensions, to make tradeoffs between price and quality, and to balance various quality concerns. At the same time, there are too many social and political issues involved for health care to be governed solely by the marketplace. It is therefore necessary to construct a workable competition policy that seeks to understand the interconnections among private markets, public values, and professional concerns. Such a policy would seek to harmonize federal and state regulations, address distinctions between public and private spheres of influence, and reconcile the roles of government as purchaser of medical services, guardian of public health, and protector of the integrity of private markets through the antitrust laws.