ROUNDTABLE ON THE ROLE AND MEASUREMENT OF QUALITY IN COMPETITION ANALYSIS

-- Note by the United States --

1. This paper responds to the Chair's letter of April 4, 2013, calling for submissions for the roundtable on The Role and Measurement of Quality in Competition Analysis. The letter poses a series of questions about the consideration of quality in competition analysis.

2. It has long been recognized under U.S. antitrust law that quality is among the attributes of a product or service that typically benefits from competition:

4. Quality issues have regularly arisen in investigations by the Federal Trade Commission and the Antitrust Division of the U.S. Department of Justice (collectively, "the Agencies") and in litigated cases in the courts across many industries, especially cases involving professions and health care. Anticompetitive reductions of quality have been found in cases involving mergers (discussed below), single firm conduct,[4] and concerted behavior by rivals.[5] The agencies and the courts also have recognized that improvements in product or service quality may justify certain restraints on competition, especially vertical restraints,[6] but such claims have been rejected when unsupported by evidence.[7] As noted below, third, differences in quality also may be relevant to market definition for purposes of antitrust analysis.

5. The Agencies often analyze quality as a key feature of the competitive process. As noted in the Agencies' Horizontal Merger Guidelines[8] and discussed below, quality can be an important aspect of competition that the Agencies consider in analyzing a merger. For example, the Department of Justice successfully argued in court that the loss in competition caused by the acquisition of one manufacturer of tax preparation software (TaxACT) by another (H&R Block) was likely to harm consumers via higher prices and/or lower quality.[9] In the same way, analysis of quality issues can be important in reviewing civil

6. This paper starts with a conceptual framework of quality and its measurement drawn from the economic literature, and then discusses some theoretical issues that distinguish competition via quality from the more familiar price competition. The paper then focuses on the analysis of quality in mergers, specifically in market definition and assessment of competitive effects. Finally, the paper discusses the important role quality analysis plays in the FTC's antitrust enforcement in hospital markets.

1. Defining Quality

7. One way to conceptualize products and services is as collections of attributes that consumers evaluate in making their purchasing decisions. A common economic definition of a quality attribute is one where all consumers would agree that the product or service would be improved with higher levels of the attribute, all else held equal.

8. The processing speed of a computer is one example of this. Keeping constant the price, reliability, electricity usage, heat output, and all other factors, it seems likely that virtually all consumers would have a preference for a faster computer.[11]

transistors and diodes increase, but the reliability of delivery times—an aspect of quality critically important to aerospace customers—had declined.[12]

13. However, price and quality will often be in tension, as when increased quality, either of a product or service, comes in concert with increased price. In these circumstances, when the conduct involves agreements between rivals, the courts have consistently held that the trade-off should be done by consumers, and not by the suppliers, ex ante, through restraints on trade.[13] Whereas when vertical restraints are involved, as with resale price maintenance, the courts have been more supportive of ex ante restraints

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efficiency in the costs associated with producing higher quality. A "quality efficiency" would tend to cause the firms to have the incentive to increase quality levels, all else equal.[22] Quality efficiencies are distinct from conventional efficiencies, which are changes in the cost of producing a unit of output. As with prices, the net effect of the merger on quality may be negative or positive depending on how the quality efficiency compares to the effect of the loss in competitive incentives. Parties may argue that the facts of a particular case suggest that the claimed efficiencies for quality production outweigh competitive effects, but efficiencies, including quality efficiencies, will most likely make a difference when likely adverse effects are not large.[23]

6. Application of Quality Analysis in the Evaluation of Hospital Mergers

21. Quality issues frequently arise in the health care industry, particularly in cases involving physician cooperation, scope of practice of professionals, and hospital mergers, which will be the focus of the remainder of this paper (though many of the points are applicable to other industries as well).[24] Most of the FTC's recent hospital merger cases involved claims by the merging parties that the merger would improve clinical quality. In several such cases, expert witnesses on both sides performed analyses regarding clinical quality issues.[25]

22. As discussed in Romano & Balan (2011),[26] such claims can be plausible, and are valid subjects of merger analysis. The paper develops a conceptual framework for evaluating such claims, and points out that plausible efficiency claims are characterized by reductions in the cost of producing quality.[27] That is, the evaluation of possible quality improvements from a hospital merger is justified when there is a

23. Fortunately, certain aspects of clinical quality, at least in hospitals, lend themselves to measurement in a way that other kinds of quality often do not. In general, the development of quantitative metrics for measuring different aspects of hospital quality (e.g., mortality, complications) is now a well-developed discipline. Many of the analyses discussed in Romano & Balan, which make use of these metrics, can be performed with readily available data.

24. In recent years, the FTC has brought or prepared to bring a number of hospital merger cases. An analysis of the likely effects of the merger on clinical quality has figured prominently in all of them. Here we discuss two of those cases, which were selected because they both involve public proceedings with public records to which we can cite.

25. The quality claims made by the merging parties in the Evanston case are discussed in detail in the Romano & Balan paper. Unlike most merger cases, the Evanston case was brought retrospectively, some years after the merger was consummated. This made evaluating the effects of the merger easier than in most prospective cases, which must rely on the sometimes more difficult task of making predictions about probable future effects.

26. A central assertion by the merged parties in the Evanston case was that the merger had increased quality at the independent Highland Park Hospital in a number of areas, including: cardiac surgery and interventional cardiology; the purported benefits to Highland Park of being affiliated with a teaching hospital (Evanston Hospital); improved nursing care; and obstetrics.[28] The FTC's quality expert, Dr. Patrick Romano, addressed these claims by linking them to well-established quality metrics, which could then be analyzed quantitatively.[29] That is, he took each claimed quality improvement, and identified which metrics would be expected to show improvement if the claim was true. Then, using a statistical technique known as difference-in-differences analysis, he analyzed whether those metrics had in fact improved (relative to a group of control hospitals) following the merger. He found little evidence of quality improvements and even some limited evidence of quality deterioration.

27. In the Evanston case, the Administrative Law Judge and the Commission both rejected substantially all of the parties' clinical quality claims.[30] Regarding the quantitative analysis described

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evidence than it did to substantiate its claims that the changes it made at Highland Park improved the quality of care."[31]

28. In the Rockford case, which was a prospective challenge, the merging parties similarly made a number of clinical quality claims, of which we mention two. First they asserted that, following the merger, the merging hospitals would consolidate some services at a single location increasing the volume for certain procedures, which would purportedly lead to improvements in patient outcomes. Second, they also asserted that the acquisition would help the hospitals achieve greater clinical integration, a major goal of healthcare reforms underway in the U.S.[32] The FTC's quality expert argued that there was doubt as to whether the proposed consolidation of services would take place. In addition, he argued, based on a large body of research literature, that a positive relationship between procedure volumes and patient outcomes only exists for some procedures, and that these were not the procedures that the merging parties had claimed they would consolidate post-merger.[33] He also argued that the kinds of organizational changes that promote clinical integration mostly involve combinations of *complementary* providers, meaning different kinds of providers, such as physicians from different specialties, joining together to coordinate care. The proposed merger, in contrast, was a combination of *substitute* providers, meaning two full-service hospitals that do substantially the same things. This undermined the assertion that valuable clinical integration would result from the merger[34]

29. The district court rejected the parties' quality claims.[35] As to their first assertion, the court expressed doubt that the merger would result in increased procedure volumes, and also that the procedures in question were of the type for which a volume/outcome relationship had been established in the research literature.[36] The court also rejected the second assertion, concluding that the parties' assertions about clinical integration were "contradicted by [the] defendants' own financial projections, which show that defendants expect to remain profitable even as healthcare reforms begin to take effect."[37]

30. As the above examples indicate, the quality claims made by merging hospitals in the FTC's litigated cases have not been found to be convincing. That is, the parties have not succeeded in showing