

**Identifying Consumer Characteristics
Which are Important
To Determining the Existence of Workable Competition
In the Interexchange Telecommunications Industry**

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INDUSTRIES CONSIDERED

- 1.Airlines
- 2.Consumer goods
- 3.Electricity
- 4.Financial services
- 5.Funeral
- 6.Health care
- 7.Insurance (credit)
- 8.Insurance (property and liability)
- 9.Motor carriers
- 10.Natural gas
- 11.Prescription drugs
- 12.Railroads
- 13.Soft drinks
- 14.Telecommunications

INTRODUCTION

This report considers determinations by regulators, legislators and other public policymakers of whether workable competition exists in the interexchange telecommunications industry. The basic thesis of this report is that a determination of whether workable competition exists cannot be made in isolation from a detailed examination of the consumers who make up the market. While unquestionably the characteristics of the telecommunications firms must be considered, to examine only those characteristics is to engage in a substantially incomplete analysis.

This report is significant, also, in what it does not undertake to do. It takes no "pro" or "anti" regulation/deregulation position. Indeed, it takes no position on what the ultimate answer is to the question of whether workable competition exists for interexchange telecommunications.\1\ The efforts included in this report, in other words, are expressly designed to raise questions, not to answer them.\2\

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1. By inclusion in this analysis, however, the report does take the position that each identified issue has at least some prima facie application to the telecommunications competition debate.
 2. In this regard, the factors discussed herein tend to look at structural conditions which affect the presence or not of competition rather than the behavior of firms which might indicate whether or not competition is present.

This report is intended to complement other current analyses.³ It is intended to look only at the consumer-side characteristics that are too often "forgotten," or in any event underemphasized, in competition analysis.⁴ Implicit is an identification of perceived shortcomings in much (perhaps even most) of the contemporary argument over telecommunications competition for its failure to consider consumer-side issues, not as a political consideration, but as a factor in determining the presence or absence of workable competition.

Most analysis of whether or not workable competition exists in the telecommunications industry today concentrates on evaluating the issue only from the perspective of the firm.⁵ Common approaches to the inquiry include examining industry concentration⁶ and firm size dispersion.⁷

3. Compare, Horning, et al., Evaluating Competitiveness of Telecommunications Markets: A Guide for Regulators, National Regulatory Research Institute (January 1988) (hereafter Horning); see also, William Shepherd, "Effective Competition, Deregulation and 'Price Caps'" (October 1988).

4. Accordingly, several "traditional" issues are not discussed in this report. These issues include, for example, market concentration and size dispersion; the presence or not of natural monopoly; the existence of excess capacity; the mobility of capital; the pricing of services above marginal cost; and the presence or not of supra-competitive profits.

5. Compare, F.M. Scherer, Industrial Market Structure and Economic Performance (1980) (hereafter Scherer).

6. See, e.g., Horning, supra, at iv ("In distinguishing between competitive and noncompetitive telecommunications markets, commissioners can draw upon antitrust standards and comparisons of market concentration in

Contestability theory,⁸ as well, depends upon a firm's perspective, i.e., how will one firm modify or shape its conduct in recognition of the fact that a different firm is a potential market entrant.⁹

Analysts rely almost exclusively on the multiplicity of firms and the implications of such multiplicity in support of deregulation. Nearly every industry publication holds out the multiplicity of firms as evidence of workable competition. Moreover, state legislation addressing the presence of workable competition in the telecommunications industry also focuses its attention on issues analyzed from the perspective of the firm.

An exclusive, or even primary, focus on the perspective of the firm, however, is inappropriate. Indeed, determining whether or not workable competition is present depends as much on an examination of consumer-side characteristics as it does on structure-conduct-performance

telecommunications with concentration in other markets.") (emphasis added).

7. Compare, J. Kwoka, "Market Shares, Concentration, and Competition in Manufacturing Industries," Staff Report to the Federal Trade Commission Staff (1978). (with citations).
8. For what is commonly considered to be the genesis of "contestability theory," see, W. Baumol, "Contestable Markets: An Uprising in the Theory of Industrial Market Structure," 72 American Economic Review 1 (1982).
9. Contestability theory has largely been discredited through the airline deregulation experience. See, U.S. General Accounting Office, Airline Competition: DOT's Implementation of Airline Regulatory Authority, at 26, 34 (June 1989). (hereafter DOT Authority).

issues,¹⁰ the analysis of which is undertaken from the perspective of the firm.

The essential conditions for the presence of theoretical "perfect competition" include:¹¹

1. Firms lacking ability to influence the market
2. Homogenous products
3. Perfect information for producers
4. Perfect information for purchasers
5. Free entry and exit
6. Lack of constraints on price movement up or down
7. Frictionless resource mobility

Clearly, it is impossible (or virtually impossible) to meet these conditions of "perfect" competition.¹² The search, then, is not for conditions in which perfect competition can occur, but rather conditions in which "workable"

10. For an excellent description of issues involving structure-conduct-performance in a regulated industry, see, J. Hanson, et al., Monitoring Competition: A Means of Regulating The Property and Liability Insurance Business, at 248 - 390, National Association of Insurance Commissioners (May 1974). (hereafter Hanson).

11. See, generally, Ferguson and Gould, Microeconomic Theory, at 223 - 226 (4th ed. 1975). (hereafter Ferguson and Gould); see also, Mansfield, Microeconomics: Theory and Applications, at 249 - 250 (3d ed. 1979). (hereafter Mansfield).

12. For a general discussion of what practical factors affect the existence of competition, see, C. Edwards, Maintaining Competition--Requisites of a Governmental Policy (1949).

competition\13\ can occur. It is toward that end that the factors discussed below are set out.

A determination of workable competition must incorporate a time-action focus rather than relying upon a simple static analysis. It is insufficient to determine whether an industry is competitive now. Rather, any informed consideration must look also at where the industry has been and where it is headed. If factors are present, for example, which make it increasingly difficult for new firms to enter the interexchange market, the evaluation should look at how competitive the market will remain.

An excellent example of the failure to consider changes over time is the deregulated airline industry. As the U.S. General Accounting Office recently noted, significant changes have occurred in the domestic airline industry since deregulation. In the early years of deregulation, GAO said, "competition intensified."¹⁴ The GAO later concluded, however, that "industry experts both inside and outside [the Department of Transportation] believe that the airlines' competitive environment has been altered by

13. See, J.M. Clark, "Toward a Concept of Workable Competition," 30 American Economics Review 241 (June 1940); J.W. Markham, "An Alternative Approach to the Concept of Workable Competition," 40 American Economic Review 349 (1950); S.H. Sosnick, "A Critique of Concepts of Workable Competition," 72 Quarterly Journal of Economics 380 (1958); G.W. Stocking (ed.), Workable Competition and Antitrust Policy (1961).

14. DOT Authority, supra, at 14.

changes in the airlines' marketing and operational strategies."¹⁵ The GAO concluded, that "taken together, these changes give airlines the opportunity to dominate an airport or region and charge monopolistic prices on some routes."

So, too, with the telecommunications industry, a static analysis looking at how things are, without looking at past and future trends, is an inadequate means of deciding upon the competitiveness of the telecommunications industry. Emphasis must be placed not only on the trends that currently exist, but on trends that become newly apparent in the future as well.

In addition, a determination of workable competition must look carefully at the operation of the commercial and regulatory institutions within which decisions, both producer and consumer, are made. Rather than being made up of market clearing prices set by supply and demand, the factors affecting whether competition exists consist of actual institutions and transactions.¹⁶

Within this framework, a variety of factors affecting the presence or absence of interexchange competition are examined below.

15. DOT Authority, supra, at 35.

16. See, K. Howe and E. Rasmussen, Public Utility Economics and Finance, at 175 (1982).

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PART I: MEASURES OF COMPETITION.

Having determined the type of competition being sought after,¹⁷ and the market in which competition is sought,¹⁸ the next step is to determine whether workable competition does, in fact, exist. The following discussion lays out a series of factors to consider in making a determination of whether an interexchange telecommunications market is workably competitive. The factors are largely empirical. With some exceptions, in other words, few of them tend to indicate ipso facto that the interexchange market tends to be, or not to be, workably competitive. The answers depend upon a detailed factual inquiry.

The purpose of this evaluation is limited. It is not to determine whether the telecommunications industry should be regulated rather than deregulated. It is not to apply the measures of competition to the telecommunications industry. Rather, the purpose here is to identify a variety of means to determine whether workable competition exists, to explain their theoretical basis, and to indicate how the concerns which underlie these measures have been used in other industries. As discussed above, the factors that are discussed below involve issues that have been "left out" of the interexchange competition debate to date. Factors that are

17. See Appendix A, *infra*, for a discussion of the types of competition that might exist.

18. See, Appendix B, *infra*, for a discussion of how to define the appropriate market to consider.

"commonly" discussed in other analyses of telecommunications competition are not included in this report. This is not to detract from their importance. It is merely the purpose of this report to introduce other issues.

SECTION 1: Consumer Information.

The existence of a competitive market is based upon the availability and exercise of consumer choice. One of the essential elements to the proper operation of a competitive marketplace is consumer knowledge.¹⁹ Taking her preferences, a consumer will use her knowledge of available alternatives to translate her wants into satisfaction. As one economist points out, however, "the key element in this equation is thus knowledge, i.e., clear, objective standards of comparison, not vague suspicions of the merits of competing products."²⁰ A consumer who lacks genuine information about products is forced to rely upon "indexes of quality," such as trade marks, brand names, company reputation, company size and age, and price.²¹

19. Mansfield, *supra*, at 250; see also, Ferguson and Gould, *supra*, at 224 - 225.

20. Ferguson, "Consumer Ignorance as a Source of Monopoly Power: FTC Staff Report on Self-Regulation, Standardization, and Product Differentiation," 5 Antitrust Law and Economics Review 2-79, 93 (1971 - 1972).

21. T. Scitovsky, Welfare and Competition: The Economics of a Fully Employed Economy (1951) at 333 - 335. (hereafter Welfare and Competition).

In addition to eliminating price and quality competition, shopping based on a lack of adequate information promotes purchases based on habit. Accordingly, large and established firms have distinct competitive advantages over smaller and relatively unknown firms. The more complex the product, the more ignorant the shopper will be. And the greater the shopper's ignorance, the greater will be the reliance on "index" shopping. "The importance of this advantage is measured by the high price that is sometimes asked and paid for the mere use of a name or trademark. In fact, the price for which established goodwill is bought and sold may be regarded as a measure of the value of oligopoly power that is due to buyers' ignorance."^{22\}

The lack of consumer information has been a particular problem in the insurance and financial services markets. One consumer representative, in a recent international symposium on the consumer and financial services, reported that disclosure problems were of particular current significance with regard to home equity loans and variable rate lines of credit.^{23\} Similarly, the National Association of Insurance Commissioners has found that information disclosure regarding property and casualty

22.T. Scitovsky, "Ignorance as a Source of Oligopoly Power, 40 American Economic Review 49, 52 (May 1950). (hereafter Scitovsky).

23.K. McEldowney, "The Changing Relationship Between the Consumers and the Financial Institution: What are the Information Needs of Consumers," (paper presented at Conference on The Consumer and Financial Services: New Horizons, Limelette (October 12 - 14, 1989)).

insurance was necessary because of the complicated policies and the fact that there is no ready method of price comparison.\24\

The thesis that competition acts to discipline market prices depends for its efficacy upon the assumption that consumers will seek out information in their decisionmaking. That assumption is demonstrably false. Instead, consumers tend to make habit purchases. The fact that "there are many things a person buys from habit and much that is bought on impulse"\25\ is a commonly recognized shortcoming in the argument that consumer decisions discipline market prices. This is true for several reasons.

First, it is simply impossible for consumers to seek sufficient information so as to make rational price decisions for each purchase they make. As one economist notes, the task of choosing "in a rational way, on each occasion" would be "too time consuming and too exhausting an occupation even if the entire staff of a Consumers' Advisory Board were placed at the customer's disposal."26\

Certain characteristics do lead consumers to make "genuine decisions" about the purchase of products or services. These include

24.Hanson, supra, at 124.

25.E. Mishan, The Costs of Economic Growth, at 117 (1967). (hereafter Mishan).

26.Mishan, supra, at 117.

expenditures which are subjectively thought to be major and which are fairly rare, and the purchase of new products (or the first purchase of a particular product).\27\ Interexchange toll calls do not typically represent either "major" or "rare" expenditures, nor does the placement of an interexchange phone call represent an unusual or "new" experience. It is unlikely, therefore, that "genuine decisionmaking will occur.\28\

In addition, consumers are often incapable of using information, even if available. Research indicates that a large portion of the adult population is unable to perform basic consumer math. In one study, only thirty-nine percent of the adults tested were able to compare different-sized containers to determine the best price. In the same study, only thirty-two percent of the adults were able to determine the square foot unit cost of housing space. Only thirty-five percent of adults were able to determine the unit cost of a utility bill.\29\ This inability of consumers to comparison shop contributes to both index and habit buying and represents a serious challenge to the assumption of perfect consumer information.

27.G. Katona, "Genuine Decision-Making," The Mass Consumption Society, at 289 - 290 (1964).

28.G. Katona, The Powerful Consumer, at 139 - 141 (1960).

29.Mathematics Report No. 04-MA-02, at 1 - 3, National Assessment of Educational Progress (June 1975).

In sum, any determination of whether a market is workably competitive must depend in part on the availability and use of consumer information. If information is not available, or if consumers are incapable of relying on information because of its complexity, the finding that workable competition exists and will enforce price discipline is likely in error.

SECTION 2: Consumer Hurdle Rates.

The mere availability of consumer information does not guarantee the competitive operation of markets from the consumer perspective. Price theory assumes that a competitive market operates in a frictionless environment.³⁰ When price changes occur at the producer level, consumer reaction to those changes are assumed to be instantaneous. Moreover, there is assumed to be no constraint on the consumer's reaction.

In reality, of course, there are substantial constraints on consumer reactions to price changes even when consumers know of the changes and understand their significance. Even setting aside such issues as nonprice competition, habit buying, product differentiation and the like, and assuming that the consumer knows and wishes to act upon a full knowledge of the extent and implications of a price change, constraints exist. The issue, therefore, is whether these constraints are so significant as to interfere with workable competition.

30. J. Hirshleifer, Price Theory and Applications, at 234 - 236 (2d ed. 1980). (hereafter Hirshleifer).

A consumer's decision to change interexchange carriers involves weighing the costs of the search³¹ against the amount of the gain.³² In one sense, incurring the costs of the change involves the consumer making an investment in the new carrier so as to gain lesser cost service. That is the essence of the competition argument: if one firm in a workably competitive market unreasonably raises its rates, consumers will move to a lesser cost firm.

Against the investment in the new firm, the consumer must weigh the potential savings. The consumer will only make the investment if the savings results in a desired rate of return. The rate of return necessary to prompt consumer investment in a measure designed to save money is generally referred to as the "hurdle rate." The difference between the current carrier and the least-cost carrier, in other words, must be sufficient, i.e., must have a substantial enough spread, to meet the customer's hurdle rate. Unless this exists, no consumer action will occur.

Consumer reaction to price changes will involve a variety of identifiable costs. There is the cost of the search. Consumers will, at the least, be required to devote time to making a determination of who the

31.S. Bryer, Regulation and Its Reform, at 26 (1982).

32.See, Mansfield, *supra*, at 105.

least-cost producer is.³³ There is the cost of any switch-over fee. To switch from one interexchange carrier to the other, for example, might well involve a fee of from five to ten dollars. There is the cost of the learning curve for the new carrier. The consumer must determine to whom to pay the bill, to whom billing inquiries should be directed, to whom service complaints should be made, and the like.

A second cost to be considered is the fixed investment in the current carrier. This recognition of "consumer investment" as a barrier to competition has been thoroughly discussed in the natural gas arena in particular. As Senator Paul Douglas, a noted economist, explained in 1956: The 26.5 million residential customers in 1955 have a total investment in major gas appliances of \$14,396 million or an average of \$542. This is a large sum to a typical family, being 13% of the average family income (\$4170), or the entire paycheck for the average family for almost seven weeks. When the price of gas goes up, all the householder and his wife (sic) can do is wince and bear it. He is not going to scrap his investment in a gas furnace, hot water heater or gas range.³⁴

33. See, generally, Symposium on Information, 44 Review of Economic Studies 389 (1977).

34. Douglas, "The Case for the Consumer of Natural Gas," 44 Georgetown Law Journal 566, 575 (1956).

As Senator Douglas correctly noted: "[Consumers] have made their heavy investments because of the present [relatively low] rates and have given their appliances as hostages. Their marriage with natural gas* * *is virtually indissoluble."³⁵ Similar findings have been made regarding decisions relating to electric service.³⁶

Against these costs, the consumer will weigh the potential for gain. In measuring the potential savings, the consumer will take into account the risk that the projected savings will not occur.³⁷ As the risk of nonperformance increases, the rate of return will increase, thus increasing the consumer's hurdle rate.

The risk that projected savings will not in fact arise from telecommunications rate changes is great. Even if one carrier appears to be the least-cost carrier at any given instant, there is no assurance that rates will remain in effect for any extended period and that the carrier will remain the least-cost carrier over time. With telephone rates in particular, consumers are asked to bear the risk that the investment they make in the change of

35. Douglas, *supra*, at 576; see also, Congressional Research Service and National Regulatory Research Institute, *Natural Gas Regulation Study*, at 117 - 118 (July 1982). (hereafter Natural Gas Regulation Study).

36. See, J. Boatwright, "Competition and Electric Rates," 7 Journal of Land and Public Utility Economics 181, 183 (1931).

37. See, Ferguson and Gould, *supra*, at 84 - 87.

carriers may or may not be rewarded with stable rates over some period of time sufficient to justify the investment.\38\

Against the known costs of changing carriers, a consumer must also weigh the fact that telephone price comparisons (and thus projected savings) cannot generally be determined in advance at any given point in time. Instead, price comparisons must generally be made both retrospectively and over a period of time, taking into consideration the amount of calling, the time of calling, the distance of calling, and other factors.\39\ Just because AT&T's rates might yield a least-cost bill in January, for example, does not mean that AT&T would yield least-cost service in March. This is true regardless of whether there are rate changes.

The difference between months can arise from any number of factors. First, consumers do not hold their "call basket" constant over time. Call patterns, in other words, not only "might" change, but will most

38. This risk can be constructively compared to the risk that recently developed appliance technologies, which have not yet achieved significant market penetrations, will not yield projected savings. This risk has been found to raise the implicit discount rate for consumers. Cambridge Systematics, "Implicit Discount Rates and Consumer Efficiency Choices," at 5 (Sept. 1982). (hereafter *Implicit Discount Rates*).

39. For a discussion of "search goods" (those goods whose quality and characteristics can be determined upon inspection) and "experience goods" (goods whose quality and characteristics can be determined only through use), see, P. Nelson, "Information and Consumer Behavior," 78 Journal of Political Economy 311 (1970).

likely change from month to month as consumers change the time-of-day of their calls, the duration of their calls and the place being called. Second, the rates of the "home" carrier (i.e, the carrier reached through Equal Access dialing) might well change at any time. Finally, relative rates might change whether or not the "home" rates do. In calculating the potential future savings, it is not the absolute rates that matter, it is the difference between companies.

In sum, for a consumer to change interexchange carriers in response to price changes, the savings generated by the change will need to represent a stream of revenue that will provide a rate of return on the consumer investment that is sufficient to prompt the investment.⁴⁰ With rates that are not fixed or guaranteed, the stream of "savings revenue" cannot be calculated. In this instance, the rational consumer would project the stream of revenue based on current rates, discount it to account for the uncertainty, and then make a decision based on that analysis.⁴¹

40. In a study of energy conservation issues, Cambridge Systematics defines the implicit discount rate, the "hurdle rate," as "reflect(ing) the rates at which consumers make incremental investments in energy-saving features in order to avoid a stream of future operating expenses born in the absence of the investment." * * * Under the assumption of optimal behavior, when a consumer selects an appliance, there is a single discount rate for which the life cycle cost of the chosen appliance is less than that of any other available alternative." *Implicit Discount Rates*, supra, at 1 - 2.

41. It is much more reasonable to assume, however, that the consumer will recognize that the savings that might appear to result from current relative rates are in reality illusory and thus choose to do nothing.

In short, there are three items that govern the extent of consumer responsiveness to price changes by interexchange carriers even assuming that the consumer knows of the price change, understands its significance and has alternatives which offer a more desirable choice. The first is the investment which the consumer must make to effectuate the change. The costs of the search and the costs of the change are included in this investment.⁴² The second is the potential savings that might arise from making the investment in the change. This is calculated by looking at the spread, the differential between the least-cost carrier and the current carrier. The third is the consumer's desired rate of return, including the premium which the consumer will demand to compensate for the uncertainty of the revenue stream consisting of the projected, but uncertain, savings.

The competitiveness of various markets can be determined in part by the class hurdle rate for new investments. On energy savings expenditures, for example, the residential class has a significant and generally recognized higher hurdle rate than commercial customers. Moreover, even within a customer class, hurdle rates may differ. Hurdle rates for low-income residential households, for example, substantially exceed those for the general residential class.⁴³ These higher hurdle rates reflect the fact that

42. Another cost might include the outstanding investment in the current carrier.

43. Implicit Discount Rates, *supra*, at 34 - 41.

money is more scarce for these particular households and that these households must, as a result, obtain a quicker return on any investment in potential savings.⁴⁴

This analysis holds many implications for decisionmakers who are asked to make determinations of whether workable competition exists in the telecommunications industry. First, if potential rate differentials are not sufficient to offer a reasonable opportunity for consumers to meet their hurdle rates, price competition may not occur. Even if prices are raised by one firm, consumers may not react. Aside from this obvious fact, the industry must also be reviewed to determine to what extent, if at all, firms are interfering with the proper functioning of the market. Raising the costs of the search will make it less likely that consumers will respond to rate changes, since the absolute level of savings will need to be greater to generate the desired rate of return. Increasing the uncertainty of the revenue stream will increase the risk of nonperformance, drive up the consumer's desired rate of return (and thus the consumer's hurdle rate), and make it less likely that any consumer response will occur.

SECTION 3: External Consumer Constraints.

A fundamental assumption of competitive markets is the presence of consumer sovereignty.⁴⁵ A consumer is assumed to derive satisfaction or

44. Implicit Discount Rates, *supra*, at 34 and 39.

utility provided by the products consumed in a given time period and seeks to maximize that satisfaction or utility for any given level of expenditures.⁴⁶ External factors, however, can exist to disrupt this proper functioning of the market thus interfering with competition.⁴⁷

One condition of the competitive operation of the market is that products must be consumed for the service which they provide to the consumer.⁴⁸ The satisfaction an individual derives from consumption must be independent of another person's consumption of the same good or service. Stated a different way, for the competitive market to work, private costs must equal social costs in the production and consumption of the product.⁴⁹ Moreover, no choice may be coerced.⁵⁰

45. See, W. Cochrane and C. Bell, The Economics of Consumption: Economies of Decision Making in the Household, at 79 (1956).

46. Ferguson and Gould, *supra*, at 12 - 13. Indeed, this has been labelled as "the principle assumption upon which the theory of consumer behavior and demand is built." Ferguson, *supra*, at 26. (emphasis added).

47. See, Kellman, "Choice and Utility," 1979 Wisconsin Law Review 769 (1979). (hereafter Kellman).

48. Ferguson and Gould, *supra*, at 34 -35; Mansfield, *supra*, at 48; Hanson, *supra*, at 100.

49. Hanson, *supra*, at 124 - 125.

50. Kellman, *supra*, at 787 - 795.

The existence of external benefits from the consumption of a particular good interferes with competition in that it affects the free allocation of a person's budget. To the extent that a person's consumption of a product yields external benefits, that person may feel compelled, or indeed be compelled, to purchase a particular level of that product.⁵¹ As a result, if there are few substitutes for the product, the demand curve for the product will be quite inelastic. In such a situation, prices could be raised to supracompetitive levels without worry of a loss of business. Insurance is a product with such external benefits. Because of the adverse effect on remaining consumers if any one consumer fails to purchase insurance, state governments often require both the purchase of insurance and/or the purchase of minimum amounts of insurance.⁵² Similarly, a telecommunications consumer may feel pressure to obtain interexchange service because of the benefits that are derived from her contact with other consumers who choose to call her.⁵³ In this fashion, the consumer no

51. The act of compelling a choice may be known or unknown to the consumers. For example, note the airline industry. As the U.S. General Accounting Office has found: "Local travel agents will tend to favor the flights of the airline providing the [computerized reservation system] because of the airline's maintenance of supportive business relationships with its network of subscribers, the so-called halo effect." U.S. General Accounting Office, "Factors Affecting Concentration in the Airline Industry," at 7, Testimony of K. Mead, Before the U.S. Senate Committee on Commerce, Science and Transportation (Sept. 22, 1988). (hereafter Mead Testimony).

52. Hanson, *supra*, at 124 - 125.

53. H.A. Green, Consumer Theory, at 27 (1978).

longer seeks to maximize her utility alone. There is an element of external social benefit associated with the purchase of the interexchange service. As a result, there is a greater demand inelasticity and competition will be decreased.

The presence of external social benefits is but one manner in which the consumer's free choice may be disrupted in the market. In other circumstances, the consumer may be required to rely on expert recommendations regarding decisions as to what good or product should be purchased. In this situation, the person making the recommendation may or may not have an incentive to take price into consideration.⁵⁴

The prescription drug industry is one example of this disruption of the market. As one commentator notes, "sole purchasing authority, as well as the necessary initiative, lies with the prescribing physician, who orders the specific drug for which the patient must pay."⁵⁵ As a result, the demand curve for prescription drugs is likely to be highly inelastic. "The absence of price-consciousness on the part of the physician, the inability of the patient to purchase any but the specified drug, and the marked inelasticity of the

54. The case of how travel agencies, because of airline commission overrides, may have no incentive to offer the least expensive fare, is discussed elsewhere in this analysis.

55. Steele, "Monopoly and Competition in the Ethical Drugs Market," 5 Journal of Law and Economics 131, 132 - 133 (1962). (hereafter Steele).

individual patient's demand curve, all are conducive to the possibility of charging a price which is extremely high relative to marginal cost."⁵⁶

Finally, there may be some external environmental factor that exerts predominant influence over consumer decisionmaking and denies the benefits of an otherwise competitive market. An excellent example of how an industry can be controlled by such external environmental factors is the funeral industry. The unique characteristics of the funeral industry have led to its label as an "atomistic monopoly."⁵⁷ As one analyst points out: "the moment the family contacts a funeral director, most competitive alternatives are almost invariably ruled out."⁵⁸ Several reasons exist why this is the case. Gerald Kissel, who has studied the funeral industry in some depth, found that because of a variety of external factors, only one of which is bereavement, "the funeral transaction" is not a determination as to whether a particular buyer and seller will contract; rather it is a discussion of the terms of the contract."⁵⁹ The staff of the Federal Trade Commission concluded

56. Steele, *supra*, at 133.

57. Kissel, "An Analysis of the Market Performance of the Funeral Home Industry in Pennsylvania," (Wharton School MBA). (hereafter Kissel).

58. A. Rappaport, "An Analysis of Funeral Pricing and Quotation Methods," at 7 (1971).

59. Kissel, *supra*, at 9 - 12. In addition to the overwhelming nature of bereavement, Kissel found, numerous other external environmental factors lead to the conclusion that: "in the vast majority of cases, therefore, if the funeral buyer is not satisfied with the prices and services offered, he is in a poor position to look elsewhere."

that because of these external environmental factors: "the upshot of this extraordinary concatenation of competitive conditions within the funeral industry is that, in his relationship with patrons of his establishment, the funeral director acts as a virtual monopolist, with a sole supplier's prerogatives with respect to pricing behavior."

SECTION 4: Product Differentiation.

Markets that are otherwise workably competitive can be infused with product differentiation that substitutes for price competition and interferes with the benefits of competition for consumers. This result is directly antithetical to the proper operation of competitive markets, which assumes the homogeneity of products. Product differentiation creates two problems. First, excessive efforts to distinguish products is considered a market structure problem. Second, significant product differentiation can operate as a market barrier to entry.

60. Division of Evaluation, Bureau of Consumer Protection, Unfair Practices in the Funeral Industry: A Planning Report to the Federal Trade Commission, at 52 (June 29, 1973). (hereafter FTC Funeral Report).

61. For a general discussion of the assumption of homogenous products, see, e.g., Welfare and Competition, supra; Ferguson, Microeconomic Theory (1966) (hereafter Ferguson); Hirshleifer, supra.

62. J. Bain, Barriers to New Competition, at 121 (1965). (hereafter Bain).

63. Hanson, supra, at 249.

64. Bain, supra, at Chapter 4.

Two types of product differentiation exist.⁶⁵ First, there can be a "real difference" between products. For products to be homogenous, there must be the same flow of service arising from consumption of each product in a market. Thus, in motor carrier regulation, for example, express freight is a service different from local freight,⁶⁶ and full truckload shipments are a service different from less than truckload shipments.⁶⁷ In the energy area, firm power is a service that is different from interruptible power.⁶⁸ Similarly, in the telecommunications industry, long-distance is a service different from local service and MTS is a service different from WATS. Products which have real differences should not be classified in the same market.

Second, there can be an induced difference between products.⁶⁹ This difference is a created one, developed through

65.Hanson, supra, at 122 - 123.

66.Lake, "Competition in the Public Utility Fields," 10 Mississippi Law Journal 197, 224 (1938). (hereafter Lake).

67.Rakowski, "Nature of Competition in Common Carrier Trucking," at 180, in Boundaries Between Competition and Economic Regulation (1983). (hereafter Rakowski).

68.See, Pace, "Relevant Markets and the Nature of Competition in the Electric Utility Industry," 16 Antitrust Bulletin 725, 733 - 759 (1971). (hereafter Pace).

69.Bain, supra, at 114. "Product differentiation is propagated by differences in the design or physical quality of competing products, by efforts of sellers to distinguish their products through packaging, branding, and the

advertising or marketing.\70\ "Product differentiation" was once aptly defined as "the process of first creating an 'illusion' and then selling it for more than it cost." \71\

The existence of a market which "competes" based on product differentiation runs counter to consumer welfare. Product differentiation tends not only to increase market concentration,\72\ but tends also to increase prices in an otherwise workably competitive market. One leading antitrust publication found in 1970 that "it is precisely this process of transforming previously competitive industries selling undifferentiated

offering of auxiliary services to buyers, and by advertising and sales promotional efforts designed to win the allegiance and custom of the potential buyer."

70. According to one staff attorney for the Federal Trade Commission, product differentiation "refers to the distinguishing or setting apart of substitute products from each other in the minds of the buyer.* * *It is the function of 'product differentiation' to disrupt [the] 'randomization' of the consumer's choices, to build into the shopper's consciousness a 'bias' that will unerringly lead her--other things being equal--to 'prefer' the version of the product made by Firm A over the version of it made by Firm B and the others, to make a pre-determined 'knee-jerk' or reflex choice* * *." Mueller, "Sources of Monopoly Power: A Phenomenon Called 'Product Differentiation,'" 18 American University Law Review 1, 22 - 23 (1968). (hereafter Mueller).

71. Mueller, supra, at 3.

72. "Almost two and half times as many moderately differentiated consumer goods industries experienced concentration increases as experienced decreases, and over three times as many highly differentiated consumer goods industries experienced increases as decreases." Mueller, supra, at 21.

(unbranded) products or commodities at low (competitive) prices, into highly-concentrated oligopolies selling differentiated (branded) products at higher-than-competitive prices that has accounted for the bulk of the increases in concentration in American industries in recent years."⁷³

Product differentiation tends to increase costs above that which would be charged in a competitive market. One study found that highly differentiated consumer products sold by concentrated industries tend to be, on the average, roughly 20 percent higher in price than physically comparable products sold under lesser-known or private label brands.⁷⁴ Another study found that based upon an analysis of the sales promotion expenditures of soft drink firms, product differentiation has been established by the large national firms.⁷⁵ This resulted in a significant price differential between large and small firms. Performance was found to be unsatisfactory in the sense that profits and sales promotion costs were found to be unduly large.⁷⁶

73. Scanlon, "Anti-Competitive Advertising and the FTC: A Ban on Oligopoly-Creating Ads?," 3 Antitrust Law and Economic Review 21, 23 (1970). (hereafter Scanlon).

74. Scherer, *supra*, at 331.

75. Mongovern, "Competition in the Soft Drink Industry," 8 Antitrust Law and Economics Review 1-93 (1976) (hereafter Mongovern); see also, Wilder, "Advertising and Economic Performance in the Consumer Goods Sector" (Ph.D. Vanderbilt University 1969).

76. Mongovern, *supra*, at 101.

The result of product differentiation is to convert a single multi-product market into multiple single product markets is threatened.⁷⁷ As a result, each vendor can seek out and set an equilibrium price as though the vendor was serving an isolated market. According to Bain, the "principal consequence() of product differentiation* * *most often emphasized in the literature of economic theory" is that "the individual seller gains some independent jurisdiction over his price relative to the prices of his rivals, which he would not have if the competing products were parts of a single homogenous, standardized commodity."⁷⁸

The impact of product differentiation has been often discussed in the ethical drugs industry.⁷⁹ In that industry, it is conceivable that the ethical drugs industry could approximate to the condition of pure competition. The market is marked with a multiplicity of firms, has low entry/exit barriers, has a homogenous product, and meets other tests of perfect competition. ⁸⁰

77. See, Brauerman, "Monopolistic Competition Due to Consumers' Imperfect Information" (Ph.D. Stanford University 1976); see also, C.E. Ferguson, A Macroeconomic Theory of Workable Competition, at 40 (1964).

78. Bain, *supra*, at 114 - 115.

79. Prescription drugs are known in the literature as "ethical drugs" and will thus be referred to as such in this analysis.

80. Steele, *supra*, at 134 - 135.

Despite these characteristics, the ethical drugs industry in particular relies heavily upon product differentiation.⁸¹ In 1966, for example, the U.S. Senate Sub-committee on Antitrust and Monopoly found that the major pharmaceutical firms spent, on average, nearly 25 percent of their total sales revenues on selling, about four times the amount allocated to research.⁸² At the same time, while the average after tax rate of return for the twelve major pharmaceutical firms was nearly 19 percent, roughly double the average profit rate in all manufacturing,⁸³ those high profits had not led to extensive entry and to competitive price reductions. Indeed, in general, despite the nearly theoretically perfect competitive environment of the ethical drugs industry, "genuine price competition among ethical drugs is effectively prevented" ⁸⁴

The ability of the ethical drugs industry to rely so effectively on product differentiation to inhibit competition is not surprising. A certain type of

81. Federal regulations now require disclosure of so-called generic drug names. 21 C.F.R. section 201.10(g)(1) requires that if a drug label bears the proprietary name, it must be accompanied by the established (generic) name "each time it is featured" on the label, other than in the running text. 41 F.R. 6908 (February 13, 1976).

82. Subcommittee on Antitrust and Monopoly, Committee on Judiciary, Report on Administered Prices in the Drug Industry, at 31 (87th Cong., 1st Sess.) (1961).

83. Federal Trade Commission, Report on Rates of Return for Identical Companies in Selected Manufacturing Industries, 1955 - 64.

84. Steele, *supra*, at 161.

goods and services is more susceptible to product differentiation than others.⁸⁵ Three characteristics stand out: (1) they are bought by consumers (rather than by producers); (2) they are purchased infrequently (a factor that prevents the consumer from "experimenting" and thus becoming familiar with the competing brands); and (3) they are complex in design or composition, thus making it difficult for the consumer to acquire the knowledge that would be needed to make an informed choice.⁸⁶ Moreover, in those instances where a consumer is likely to have little knowledge of the relative performance, reliability, and other essential characteristics (including price) of competing products, differentiation is more likely to occur.⁸⁷ In that instance, the consumer is more likely to rely upon the reputation of the seller, "popular lore" regarding the performance and past reliability, and on whether or not the seller has successfully remained in business.

Clearly, all of these factors point to a reasonable expectation of a high degree of product differentiation, rather than genuine competition, in the interexchange carrier market. Interexchange service is bought by consumers, not producers. A household tends to make its "choice" of

85. While these products are more susceptible to differentiation, they are by no means the only products susceptible to differentiation. Note, for example, the soft drinks industry.

86. Mueller, *supra*, at 29.

87. Bain, *supra*, at 214.

interexchange carriers once, at the time of an Equal Access election, and to not migrate between carriers once that election has been made. Finally, interexchange rates are based upon a variety of factors, including time of call, duration of call and distance of call among others. The services are made even more complex by the large assortment of packages and bundles offered by the interexchange carriers. It is unlikely that the average consumer will know the "essential characteristics" of the differing interexchange services. In short, interexchange service is ripe for the problems brought about by product differentiation.

SECTION 5: Advertising Impacts on Concentration.

Closely related to the notion of product differentiation is the amount of advertising in a particular industry. Substantial evidence exists which causally relates advertising to industrial concentration.⁸⁸ According to this data, the "pulling power" of advertising is not strictly proportionate to the amount spent on advertising.⁸⁹ Indeed, an expenditure by a larger firm

88. Other theory states that the cause-effect relationship goes the other way: that as seller concentration increases, firms tend to substitute nonprice forms of competition for price competition. This theory has been empirically supported. See, Kyle, "Seller Concentration, Price Competition, and Nonprice Forms of Competition in Consumer Goods Industries" (Ph.D. University of Tennessee 1972); see also, Fraundorf, "The Social Costs of Packaging Competition in the Beer and Soft Drink Industries" (Ph.D. Cornell University 1971).

89. The person commonly held to have first found this relationship is Nicholas Kaldor, "The Economic Aspects of Advertising," 18 Review of Economic Studies 13 (1950). (hereafter Kaldor).

"must overshadow that of the smaller one with the consequence that the larger firms are bound to gain at the expense of the smaller ones."⁹⁰ A number of empirical studies testing for this relationship have confirmed the observation.⁹¹

The Federal Trade Commission, in its 1969 report on food manufacturing, emphasized the role of high-intensity advertising in the promotion of high degrees of concentration in a variety of consumer goods industries.⁹² The FTC found that the increased concentration ratios induced by such advertising ultimately resulted in higher consumer prices. In at least one case, the FTC argued explicitly that economies of scale in advertising would yield undue competitive advantages.⁹³

90.Kaldor, *supra*, at 13.

91. See, e.g., M. Marcus, "Advertising and Changes in Concentration," 36 Southern Economic Journal 117 (October 1969); see also, H.M. Mann, et al., "Advertising and Concentration: An Empirical Investigation," 16 The Journal of Industrial Economics 34 (Nov. 1967); J. Bain, Industrial Organization, at 236 (1959); P.K. Else, "The Incidence of Advertising in Manufacturing Industries," 18 Oxford Economic Papers 88 (March 1966); W. Comanor and T. Wilson, "Advertising, Market Structure and Performance," 49 Review of Economics and Statistics 423 (1967).

92. Federal Trade Commission, Economic Report on the Influence of Market Structure on the Profit Performance of Food Manufacturing Companies (September 1969).

93. See, In The Matter of the Procter & Gamble Company, Docket No. 6901 (Feb. 28, 1962). The FTC position was upheld by the U.S. Supreme Court. F.T.C. v. Procter & Gamble, 386 U.S. 568 (1967).

Advertising-induced monopolies are more apt to arise around products and goods with certain characteristics. According to Greer, "although anticompetitive effects attributable to advertising are observable for all consumer commodities, advertising is found to be of greatest probable influence in markets of highly differentiable consumer commodities* * * compared with markets of more standard commodities* * *."94\ Because of the infrequency with which the "purchase" of a carrier is made,\95\ the complexity not only of the goods, but of the pricing and packaging of services, and the unlikelihood that residential consumers will understand the essential characteristics distinguishing interexchange carriers, interexchange service is considered to be highly subject to product differentiation.

SECTION 6: Advertising as Entry Barrier.

In addition to its otherwise potentially anticompetitive effects of increasing concentration among existing firms, the level of advertising expenditures also has the effect of blocking entry into an industry thus

94. Greer, "Advertising and Competition" (Ph.D. 1968 Cornell University). (hereafter Greer).

95. While it might be said that a consumer purchases interexchange service each month, the more meaningful consumer decision is the choice of an interexchange carrier, which is the relevant point-of-purchase for purposes of determining whether competition exists as between carriers.

restricting competition.⁹⁶ Unlike the theoretical assumption of absolutely free entry and exit, a firm's entrance into the market, (particularly a market that has, since its inception, been dominated by one firm), in reality will go little noticed without substantial advertising. The needed promotional outlay will necessarily be dictated in part by factors such as the geographic size of the market and the population density. However, market structure, itself, also comes into play. This is particularly true for a market that is not marked by inherent product distinctions.⁹⁷ Any given minute of long-distance toll calls, for example, is marked by no inherent distinction as between interexchange carriers.

Entry barriers arise because advertising tends to yield economies of scale and "the incentive to advertise increases with the size of the firm."⁹⁸ Since new entrants to the market will be of insufficient size to obtain these

96. See, Hanson, *supra*, at 303 - 04; see also, Wilder, "Advertising and Economic Performance in the Consumer Goods Sector" (Ph.D. Vanderbilt University 1969).

97. See, Clarke, "An Empirical Investigation of Advertising Competition" (Ph.D. Purdue University 1972).

98. Asch and Marcus, "Returns to Scale on Advertising," 15 Antitrust Bulletin 33, 38 (1970). In contrast to Asch and Marcus, Greer found "inconclusively negative" results for his hypothesis that "there are static (single time period) economies of scale to absolute advertising expenditures, which, under certain conditions, increase the minimum efficient size required of a new firm for successful market entry." The fact that Greer used a static rather than a dynamic analysis, however, is a serious shortcoming.

economies of scale, those entrants will always face difficulties in gaining any substantial market foothold.

The ethical drugs industry represents an excellent example of how promotional outlays can present barriers to entry in an otherwise workably competitive industry. It is generally recognized that the needed outlay on sales promotions for ethical drugs prevents the introduction of new products by small firms.⁹⁹ Cost and marketing advantages also represent significant entry barriers in the motor carrier/trucking industry.¹⁰⁰

The problem of advertising needs as an entry barrier is particularly acute when a market is occupied by a multiproduct firm. The presence of multiple products tends to reinforce the name of the parent vendor in the minds of the consuming public. If the public can be exposed to advertising on a variety of products, in other words, each campaign strengthens and reinforces each other campaign. Thus, just as a person is more likely to buy a typewriter from a firm which advertises other office equipment, so, too, is a person more likely to choose an interexchange carrier if that person sees advertising campaigns for personal computers and fax machines.¹⁰¹ A

99. Steele, supra, at 138.

100. See, U.S. General Accounting Office, Trucking Regulation: Price Competition and Market Structure in the Trucking Industry, at 13 (Feb. 1987). (hereafter Trucking Regulation).

101. This conclusion is not surprising, in light of the knowledge available concerning "index buying."

single product firm, therefore, must overcome not only the advertising on the service subject to direct head-to-head competition, but the advertising on complementary services as well.

SECTION 7: Tie-Ins.

The "tie-in" of sales between products or services can act as a serious obstacle to competition. That market power can be exercised to create tie-ins by interexchange carriers should be of significant concern to persons measuring the competitiveness vel non of such markets.¹⁰² Two types of tie-ins exist: involuntary and voluntary.¹⁰³ It is the latter that poses the greater concern in the telephone arena.¹⁰⁴

102. See, Edwards, "Economics of 'Tying' Arrangements: Some Proposed Guidelines for Bank Holding-Company Regulation," 6 Antitrust Law and Economics Review 3-87 (1973); see also, Dore, "The 'Total Product' Approach to Analysis of Alleged Tying Arrangements," 34 Washington and Lee Law Review 409 (1977).

103. See generally, A. Papandreou and J. Wheeler, Competition and Its Regulation, at 397 (1954). (hereafter Papandreou and Wheeler).

104. The belief of most is that involuntary tie-ins do not pose the most significant threat to consumers. For a tie-in to be "involuntary," the seller must use coercive tactics to induce the joint purchase. Involuntary tie-ins occur notwithstanding express state and federal prohibitions. See, e.g., Note, "The Merger of Banking and Insurance: Will Congress Close the South Dakota Loophole," 60 Notre Dame Lawyer 762, 775 (1985). (hereafter Notre Dame Note).

A tie-in exists when the purchase of one product is conditioned upon the purchase of another.¹⁰⁵ The considerable experience of banking regulators can be relied upon in evaluating the problems of tie-ins. The threat of tie-ins, for example, underlies much of the history of legislation, regulation and litigation over the insurance activities of banks and bank holding companies.¹⁰⁶ Indeed, at least one commentator states that the primary concern with the mixing of bank and non-bank activities is the potential for tying arrangements.¹⁰⁷ In that instance, the tying product is the extension of credit and the tied product is insurance.

A "voluntary" tie-in can occur when the consumer perceives that the seller has market power for one of the products and expects the joint purchase, even though no "coercion" occurs.¹⁰⁸ This type of tie-in is, in other words, based merely upon an incorrect perception. This type of tie-in

105. Eisenberg & Schweitzer, "Tie-Ins Between The Granting of Credit and the Sale of Insurance by BHCs and Other Lenders," 101 Staff Studies, Board of Governors, Federal Reserve Board, at 7 - 8 (Feb. 1979) (hereafter Eisenberg & Schweitzer); see also, Papandreou and Wheeler, *supra*, at 397.

106. Schweitzer and Halbrook, "Insurance Activities of Banks and Bank Holding Companies; A Survey of Current Issues and Regulations," 29 Drake Law Review 743, 752 (1979 - 1980). (hereafter Schweitzer and Halbrook).

107. Strommon, "Paving the Way in the Financial Services Industry: South Dakota Opens the Insurance Industry to Banks," 29 South Dakota Law Review 172, 173 (1983) (hereafter Strommon).

108. Schweitzer and Halbrook, *supra*, at 753.

is quite common in the financial services industry. Data presented to Congress, for example, indicates that more than one-in-three customers purchasing credit insurance believed either that the insurance was required or highly recommended.\109\

Moreover, banks routinely engage in activities to affirmatively promote this misconception. Such activities include the inclusion of insurance in quoting monthly repayment figures, the automatic pre-inclusion of premiums in loan documents, the presentation of pretyped loan agreements for signature without disclosing the purpose of the signature, and the placement of an "x" by the authorization signature line or otherwise indicating the borrower should sign it. A creditor "going over" the loan documents with the borrower, explaining the insurance charges pre-included in the documents, reinforces the notion that the insurance is required.\110\

A concern about tie-ins is legitimate in the interexchange telecommunications industry as well. Tie-in studies show that the potential for an incorrect perception is greatest for: (1) companies that have a high name recognition; (2) companies that have close geographic proximity to their industry subsidiaries; and (3) companies that engage in promotional

109.Hearings, Tie-Ins of the Sale of Insurance by Banks and Bank Holding Companies, U.S. Senate Committee on Banking, 96th Cong., 1st Sess. (June 14, 1974).

110.K. Brown & K. Keest, Usury and Consumer Credit Regulation, at 165 - 166 (1987). (hereafter Brown and Keest).

acts that link the primary (tying) and non-primary (tied) activities.¹¹¹ Indeed, there is ample evidence of the pressure placed upon employees of local telephone companies to tie the sale of certain telecommunications products to the sale of phone service. The sale of "optional" enhanced services such as call-forwarding, call waiting and the like are frequently tied to the sale of basic local service.

"Voluntary" tie-ins between interexchange and other services should be of concern to policymakers in two ways. First, the most obvious concern is in the inherently coercive nature of the interexchange transaction. Residential customers believe that long-distance toll service is a necessity.¹¹² Indeed, for a rural customer in particular, the presence or absence of telephone service directly affects the customer's ability to maintain heating and lighting as well.¹¹³

111. Schweitzer & Halbrook, *supra*, at 753.

112. See, e.g., Michigan Citizens Lobby, "Low Income Households in the Post-Divestiture Era: A Study of Telephone Subscription and Use in Michigan," at 99 and 108 (October 1986).

113. For example, in a 1988 study of winter-heating disconnections in Maine, the National Consumer Law Center found that 70 percent of the households for whom a winter disconnection was sought, and 80 percent of the households for whom a winter disconnection was granted, lacked telephone service. The Center found that the lack of telephone service directly contributed to the loss of heating during the winter. Households without telephone service, the Center concluded, were less able to respond to their inability-to-pay situations, either by making payment arrangements or by obtaining public assistance. See, National Consumer Law Center, An Evaluation of Low-Income Utility

Second, from a broader perspective, most of the benefits projected to arise from deregulation are predicated upon the belief in a workably competitive marketplace. The tying of telecommunications services, however, impedes the operation of that market and reduces the possibility that those advantages will arise. For purposes of determining whether the competitive market is working to produce the hypothesized benefits, it matters not whether the tie-in is "voluntary" or involuntary.

A number of factors in the interexchange industry would tend to create "voluntary" tying. The fact that a local carrier may sell Billing and Collection Services to AT&T, but not to other interexchange carriers, would tend to tie those two firms together in the minds of the consuming public. The fact of the long prior relationship between Bell and AT&T would fortify this perception. It is not unreasonable to expect that in the minds of many consumers, long-distance service from AT&T and local service from Bell are still sold together.

SECTION 8: Reverse Competition.

Even under circumstances that would auger well for workable competition, consumers might well be faced with noncompetitive prices because of the aberrant phenomenon called "reverse competition." When

Protections in Maine: Winter Requests for Disconnect Permission, at 16 - 18 (July 1988).

reverse competition occurs, instead of competing to offer the cheapest goods, sellers instead compete "in reverse" to offer the most expensive.\114\

Reverse competition is a phenomenon that is often discussed in the context of credit insurance.\115\ In that context, reverse competition arises because the lender receives a commission set at a specified percentage of each premium dollar, sometimes as much as 30 to 50 percent.\116\ Because of these perverse market incentives, the lender has a strong financial incentive to sell the most expensive insurance to borrowers rather than the cheapest. This financial stake in the credit insurance sale, coupled with market deficiencies that prevent consumers from exerting countervailing pressures, sets the stage for reverse competition.\117\

It is not, however, simply the credit industry which labors under the anticompetitive burden of reverse competition. Airline "travel agent

114. Budnitz, "The Sale of Credit Life Insurance: The Bank as Fiduciary," 62 North Carolina Law Review 295, 297 - 98 (1984).

115. Budnitz, *supra*, at 297 - 298.

116. Credit Life Insurance Hearings Before the Subcommittee on Antitrust, Monopoly and Business Rights of the Senate Committee on the Judiciary, 96th Cong., 1st Sess., at 48 (1979).

117. Brown and Keest, *supra*, at 153.

commission overrides" work in much the same fashion.\118\ Travel agent commission overrides involve payments by airlines to booking travel agencies based upon the percentage of market captured by the airline. Thus, for example, if an airline serves 20 percent of a particular market, the agent might receive a ten percent commission, while if the airline serves 30 percent the commission might reach thirteen percent.\119\ As can be seen, an agent has an incentive not only to sell the higher priced air fares so as to obtain the higher commission, but to seek to push the penetration of those expensive fares as high as possible as well.

Many of the factors that lead to reverse competition in the airline and credit insurance industries are present in the telecommunications interexchange carrier industry. The most apparent example is in the area of the sale of Billing and Collection Services by local exchange companies. In most states, Billing and Collection Services, while perhaps offered to all interexchange carriers, are not sold to all carriers.\120\ Where it is offered, the local carrier is often compensated based upon a percent of the total bills

118. See, General Accounting Office, Factors Affecting Airline Concentration, at 4 (September 1988); see also, DOT Authority, supra, at 15 - 16.

119. See, DOT Authority, supra, at 15 - 16.

120. National Consumer Law Center, Telephone Customer Service Regulations in the Post Divestiture Environment: A Study of Michigan Bell Telephone Company, at 37 - 42 (July 1988). (hereafter Michigan Bell).

collected.¹²¹ As a result, the local carrier has an incentive not only to push households to carriers which purchase Billing and Collection Services from it, but to push households to the most expensive carrier as well. So, too, are these incentives present when "institutional" providers¹²² are compensated by the interexchange carrier based upon a percentage of the bill. In each of these situations, the incentives for "reverse competition" are identical to those incentives found in other industries.¹²³

SECTION 9: Vertical Integration.

Any evaluation of competition must examine each stage of production in a multi-step process to determine whether the industry as a whole is workably competitive. In a vertically integrated industry, for example, if any stage involves less than a competitive environment, consumers at each succeeding level will suffer the consequences. Where such integration is found, arms length bargaining does not occur.

121. Michigan Bell, supra, at 39.

122. "Institutional provider" is intended to include situations such as hotels, hospitals, and other public places who choose an interexchange carrier but who are not providers of the service themselves.

123. It is not simply commission-based selling, however, that leads to the phenomenon of reverse competition. See, e.g., FTC Funeral Report, at 53.

Vertical integration can occur through structures other than the simple parent-subsidary relationship.¹²⁴ In addition, the holding company structure has historically given rise to substantial antitrust concerns. Early natural gas holding companies, for example, divided the market, eliminated competitors,¹²⁵ and created artificial barriers to entry into the industry.¹²⁶ Similarly, the airline industry, through use of its computerized reservation systems, has effectively limited entry and reduced competitive pressures.¹²⁷

Vertical integration can also occur in the form of joint ventures,¹²⁸ unrelated to formal corporate relationships.¹²⁹ Joint ventures can result in

124. With natural gas, this parent-subsidary type of integration occurs both at the production/transmission level and at the transmission/distribution level. See, Colton and Sheehan, "Regulatory Control of Natural Gas Procurement Practices in Illinois: Permissible Regulation or Preempted Activity?" 35 DePaul Law Review 317, 321 (1986).

125. D. Hawes, Public Utility Holding Companies, at 2-24 (1984).

126. See, Natural Gas Regulation Study, supra, at 109 - 110.

127. See, U.S. General Accounting Office, Airline Competition: Impact of Computerized Reservation System (May 9, 1986). The GAO analysis was updated in September 1988 testimony to Congress. Competition in the Airline Computerized Reservation System Industry, (Sept. 14, 1988).

128. There is a well-defined and technical distinction between a "joint venture" and a merger. See, Bergman, "The Corporate Joint Venture Under the Antitrust Laws," 37 New York University Law Review 712 (1962).

129. The proliferation of joint ventures has raised substantial concerns in the antitrust area. See, Dixon, "Joint Ventures: What is their Impact on Competition," 7 Antitrust Bulletin 398 (1962).

decreased competition in three ways.¹³⁰ First, competition among horizontally related firms may be restrained. Sharing "parenthood," in other words, should be expected to constrain vigorous competition between the parents. Second, the joint venture (and the "community of interest" which it creates) may give rise to preferential treatment amongst the joint-venture participants. Finally, while a joint venture creates a new "semi-independent" firm entering market, that firm may preclude the entry of one or more of the parents into that market.

Joint ventures can be expected to flow from the need to make large capital investments in facilities.¹³¹ Such ventures have been found in the

130. Mead, "The Competitive Significance of Joint Ventures," 12 Antitrust Bulletin 819, 822 (1967). Indeed, one commentator has found that "joint ventures are inherently suspect under the antitrust laws." Watson and Brunner, "Monopolization by Regulated 'Monopolies': The Search for Substantive Standards," 22 Antitrust Bulletin 559, 573 (1977).

131. But see, Boyle, "An Estimate of the Number and Size Distribution of Domestic Joint Subsidiaries," 1 Antitrust Law and Economics Review 3-81, 92 (1968). "Firms joined together to achieve some specific function, typically some form of horizontal or vertical integration, typically give as the basic reason for their 'associations' the argument that the participating firms are either technically or financially unable to engage in the desired activity alone, a line of reasoning that implicitly assumes, of course, that the parent companies are relatively small. In fact, however, such situations are rarely found. Joint subsidiaries themselves are typically small manufacturing companies, while the parents are more often the country's very largest firms. Moreover, the parent companies are frequently direct competitors of each other, and hence seem to be using the joint subsidiary as a means of increasing the existing integration between their presumably independent companies* * *."

electric industry, for example, as the size of power plants has escalated.¹³² So, too, has the natural gas industry moved to joint ventures to finance large scale exploration projects.¹³³ Joint ventures can be expected in the telecommunications industry as well.¹³⁴ Fiber optic lines and new generations of switches involve multi-billion dollar investments.¹³⁵

In addition, there should be a concern about whether there will be a movement in this industry which parallels the health care industry's development of Preferred Provider Organizations (PPOs).¹³⁶ A PPO involves a group of doctors who agree to provide services on specified

132. Miller, "Competition and the Public Interest in the Interstate Gas and Electric Industries," 55 Iowa Law Review 570, 588 - 589 (1970).

133. Natural Gas Regulation Study, supra, at 18 - 19 and 247.

134. See, also, "Prodigy Service in Northeast To Be Delivered by Nynex," Wall Street Journal, page B1 (December 7, 1989). "In a major strategy shift, Prodigy Services Co., an on-line electronic information service, transferred its data-storage facilities in the Northeast to Nynex Corp. and is working on similar deals with other phone companies across the country. Prodigy, a joint venture between International Business Machines Corp. and Sears, Roebuck & Co. * * *."

135. See, e.g., Fellmeth, "Regulation of Telecommunications Utility Modernization Investments: A Proposal to Require an Economic Impact Statement," 8 California Regulatory Law Reporter 1 (Winter 1988).

136. See, generally, Calcuani & Averitt, "The Federal Trade Commission and Competition in the Delivery of Health Care," 17 Cumberland Law Review 293, 309 - 310 (1987); see also, Joseph, "Hospital Joint Ventures: Charting a Safe Course Through a Sea of Antitrust Regulations," 13 American Journal of Law and Medicine 621, 626 - 33 (1988). (hereafter Joseph).

favorable terms; in return, their insurance carriers direct their clients to those providers.¹³⁷ At least one such medical organization was condemned as involving unlawful price-fixing.¹³⁸ While means exist to avoid the price-fixing charge, it is nevertheless clear that the competitive impacts of such structures must be recognized and specifically addressed.¹³⁹

SECTION 10: Interlocking Directorships.

The competitiveness of an industry can be reduced by the existence of interlocking directorships.¹⁴⁰ Corporate interlocks can be of two characters: direct or indirect. A "direct" interlock involves the same person sitting on the boards of more than one corporation.¹⁴¹ The anticompetitive impact of such an arrangement is recognized by the explicit

137. Joseph, *supra*, at 626.

138. Arizona v. Maricopa County Medical Society, 457 U.S. 332 (1982). For a discussion of the Maricopa decision, see, Joseph, *supra*, at 627 - 630.

139. See, Alpert and McCarthy, "Beyond Goldfarb: Applying Traditional Antitrust Analysis to Changing Health Care Markets," 29 Antitrust Bulletin 165 (1984); Rich, "PPOs and the Per Se Rule Against Price Fixing," 6 Whittier Law Review 723 (1984).

140. See, generally, Report of the Federal Trade Commission on Interlocking Directorates (Wash.D.C. 1952); see also, Laidler, Concentration in American Industry, at 441 - 42 (1931).

141. See, J. Munkirs, The Transformation of American Capitalism: From Competitive Market Structures to Centralized Private Sector Planning (1985).

federal antitrust prohibition on having the same individual sit on the boards of two or more competing corporations.\142\

Indirect corporate interlocks, however, pose a more insidious threat to competition.\143\ This might involve, for example, a banker who sits on the board of one corporation while another official of the same bank sits on the board of a competing firm.\144\ If the bank has loaned substantial sums to both firms, there is hardly a likelihood that vigorous competition will be encouraged by these directors.\145\

A second type of indirect interlock is the interpersonal communications links that develop through the corporate board network.\146\ This might involve, for example, an individual sitting on the

142. Section 8, Clayton Act.

143. See, Papandreou and Wheeler, *supra*, at 258 - 259.

144. See, Smith, "Interlocking Directorates Among the 'Fortune 500'," 3 Antitrust Law and Economics Review 3-47, 52 (1970).

145. The competitive strength which AT&T derives from such interlocks, as contrasted to its more middle-sized brethren, has been specifically studied. See, J. Munkirs and M. Ayers, "Political and Policy Implications of Centralized Private Sector Planning," 17 Journal of Economic Issues 969 (1983).

146. Five separate types of indirect interlocks have been identified. See, J. Munkirs, "Centralized Private Sector Planning: An Institutionalists' Perspective on the Contemporary U.S. Economy," 17 Journal of Economic Issues 931, 941 (1983).

boards of an oil firm and an interexchange carrier, while a fellow oil board member in turn sits on the board of a competing interexchange carrier. As one antitrust analyst concludes: "in view of the recent findings of behavioral scientists in this area of 'interpersonal interaction,' it would be most extraordinary if these lengthy and elaborate chains of indirect interlocks were not having an adverse effect on the vigor of competition* * *".\147\

Several types of indirect interlocks of directorships are of concern. The conflict directly between competitors is but one. An interlock between competitors and major customers is another. An interlock between competitors and common major institutional investors or input suppliers is another. An interlock between competitors and common financial institutions is yet another. In each of these circumstances, effective competition can be ensured only if the directors of each corporation serve in roles where their actions are mutually exclusive.\148\

SECTION 11: Capability for Collusion.

147.Smith, supra, at 52.

148.See, generally, J. Munkirs and J. Sturgeon, "Oligopolistic Cooperation: Conceptual and Empirical Evidence of Market Structure Evolution," 19 Journal of Economic Issues 899 (1985); see, also, Hoyt, "Implications of Direct and Indirect Interlocking Directorships for Effective Competition" (Ph.D. University of Nebraska--Lincoln 1976).

One of the primary competitive harms of an oligopolistic market is the ability and propensity for price collusion among market participant.¹⁴⁹ Given such collusion, despite the lack of a single producer, output can be restricted and prices increased, the essence of monopolistic pricing.¹⁵⁰

It is not sufficient to examine the current behavior of firms in an oligopolistic market and find that "competition" is occurring because no collusion currently exists.¹⁵¹ Instead, the market must be carefully reviewed to determine whether collusion is possible. If the market is such that collusion can be maintained, it cannot be found to be workably competitive.

Any inquiry into the potential for collusion should consider not only the multiplicity of the firms in the marketplace, but should look at the behavior of the consumers, at the type of product being delivered, and at other aspects as well. Certain market characteristics tend to support collusive behavior more than others. Those characteristics include: (1) frequent, small and regular purchases by consumers; (2) posted prices or tariffs; (3) product

149. Multiple firms have no meaning except as the firms act independently. Dynamic Process, supra, at 298 and 420.

150. Mansfield, supra, at 320 - 321; see also, Ferguson and Gould, supra, at 279 - 281.

151. Hanson, supra, at 133.

homogeneity; and (4) a well-defined industry social structure, either formal or informal.\152\

SECTION 12: Elasticity of Demand.

The entire efficacy of arguments that any given market is workably competitive is predicated upon the assumed elasticity of consumer demand. It is this elasticity through which one can measure the extent to which the market offers close substitutes.\153\ In this inquiry, it is as much the cross-elasticity of demand that is in question as it is a simple price elasticity.\154\

Elasticity can serve as a surrogate measure for a number of different situations. It can indicate a lack of meaningful alternatives.\155\ It can indicate the presence of high search costs associated with gains of uncertain magnitude or duration.\156\ It can indicate brand loyalty, habit buying or

152. For a discussion of what characteristics promote collusive behavior, see, generally, Scherer, *supra*, at Chapter 6.

153. W. Cochrane and C. Bell, The Economics of Consumption, at 329 (New York 1956).

154. See, Note, "The Market: A Concept in Antitrust," 54 Columbia Law Review 580 (1954).

155. See, e.g., Pace, *supra*, at 728 - 734. (Residential energy users lack meaningful alternatives).

156. See, e.g., Hanson, *supra*, at 124 - 125. (Search costs for least-cost property and casualty insurance high).

significant product differentiation.¹⁵⁷ It can indicate genuine indifference as to price.¹⁵⁸ It is, in other words, extremely difficult to determine whether an inelastic consumer demand is evidence of price indifference or whether it is evidence of some other market failure.¹⁵⁹

In addition, it is also extremely difficult to determine whether price inelasticity is the cause or the effect of the lack of competition. Do alternatives not exist because consumers are indifferent to price changes or are consumers indifferent to price changes because there are no alternatives? This inability to identify the causal direction of market factors has been found in other aspects of economic analysis.¹⁶⁰ Whatever the direction of the cause-effect relationship, and whether or not a more inelastic demand is indicative of "genuine" consumer price indifference or is evidence of an unrelated market failure, an inelastic consumer demand by definition is associated with a less competitive market.

157. An excellent example of price inelasticity attributable to brand loyalty is the inelasticity associated with airline "frequent flyer" programs. See, DOT Authority, supra, at 16.

158. See, e.g., Mead Testimony, supra, at 7. (Business airline flyers whose firms pay fares are less responsive to lower fares or improved service).

159. See, e.g., Hirshleifer, supra, at 147 - 149.

160. See, e.g., Weiss, "Factors in Changing Concentration," 45 The Review of Economics and Statistics 70 (Feb. 1963).

A reduction in competition can also arise when markets are divided based upon the elasticity of demand.¹⁶¹ In these instances, the more inelastic demand is considered to be the "captive" market. The demarcation of this captive audience is the lack of price responsiveness. In such a market, by definition, workable competition does not exist.

SECTION 13: Consumer Size.

In addition to having a multiplicity of sellers in a market for it to be considered workably competitive, each buyer in the market must be so small as to be unable to affect price.¹⁶² Unquestionably, the size of the buyer affects the substitutes which are available to that buyer and, therefore, the price elasticity of demand.¹⁶³ As a result, a seller will tend to cater to the large buyers by offering special considerations. To the extent that large buyers can obtain significant "special considerations," competition is reduced.¹⁶⁴ Special considerations can take the form of rebates, special credit terms, free additional services and the like.

161.Ferguson and Gould, *supra*, at 284 - 287.

162.Some text books generalize by saying that each "participant" must be so small as to be incapable of affecting the market. See, e.g., Mansfield, *supra*, at 249. Some refer to each "economic agent." Ferguson, *supra*, at 193.

163.See, Pace, *supra*, at 728 - 729 and 735.

164.Ferguson, *supra*, at 193.

Without the condition that buyers, as well as sellers, must be small, the market will not respond to demand alone as the factor determining price.¹⁶⁵ Consumer demand has been likened to an economic "vote."¹⁶⁶ No market participant should have a disproportionate share of voting power. If a buyer in the market can wield substantial power, that buyer could, for example, demand discounts that redound to the detriment of the small volume users.¹⁶⁷ In this situation, different determinations must be made of whether the markets for the smaller and larger buyers are, indeed, workably competitive.

SECTION 14: Consumer Load Characteristics.

Certain load characteristics can contribute to a reduction in meaningful competition in an industry. Among the concepts that must be examined to determine the impacts on competition are the perishability of services, high capital costs, high peak demands and industry load factors.

These identified load characteristics can have a two-fold impact on competition. On the one hand, they tend to create market entry barriers which are difficult for a new firm successfully to overcome. On the other

165.Ferguson, supra, at 197.

166.Adams, "Competition and Consumer Sovereignty," at 245, in D. Watson (ed.), Price Theory in Action (3d ed. 1973).

167.For a discussion of how this is a problem in the motor carrier industry, see, Rakowski, supra, at 188 and 193.

hand, they allow existing firms to offer pricing schemes that redound to the detriment of smaller firms and to the advantage of larger firms. Both results must be examined.

High peak demands and low load factors, combined with perishable products, result in significant market entry barriers that are difficult for new, smaller and less financially secure firms to overcome.¹⁶⁸ A firm sets the uppermost boundary of its production capacity at its level of peak demand. Hence, for example, an airline must fly a 300 seat jet; an electric utility must provide power for its hottest summer day. Significant peak demands often are accompanied by low industry load factors.¹⁶⁹ A low load factor indicates a substantial disparity between peak and off-peak demands.¹⁷⁰ Given the need to provide capacity adequate to meet peak demand, low load factors further evidence a substantial under-utilization of facilities for much of the year.¹⁷¹

168. See, e.g., Rasenberger, "Deregulation and Local Airline Service--An Assessment of Risks," 41 Journal of Air Law and Commerce 843, 866 (1975). (hereafter Rasenberger).

169. See, Lloyd-Jones, "Deregulation and Its Potential Effect on Airline Operations," 41 Journal of Air Law and Commerce 815, 833 (1975) (hereafter Lloyd-Jones); see also, Rasenberger, *supra*, at 866.

170. "Load factor" shows the average use of facilities as a percentage of the maximum use. It is defined as the ratio of the average load over a designated period of time to the peak load occurring in that period. See, P. Garfield and W. Lovejoy, Public Utility Economics, at 153 (1964).

171. See, e.g., Lloyd-Jones, *supra*, at 835.

High peaks and a high capital intensity for an industry are a particular problem when an industry does not have a pyramid of peaking facilities. On the one hand, there are industries such as the natural gas and electric industries. These energy companies have progressively more limited supplies to use for the short duration of peak demand. The electric industry might have physical facilities such as oil-fired turbines, while the gas industry might have special peaking contract capacity. On the other hand, there are industries that use essentially the same facilities and equipment to meet their base load and their peak load. The airline industry is one such example. For the airline industry, low load factors thus represent a serious financial problem.\172\

The problem is exacerbated when the delivered product is "perishable." \173\ Because of that attribute, inventories cannot be maintained in anticipation of peak demand.\174\ Peak demands, in other words, must be met by simultaneous production.\175\ Moreover, the

172. See, generally, Lloyd-Jones, *supra*, at 835; see also, Rasenberger, *supra*, at 866.

173. Rakowski, *supra*, at 181.

174. See, Brenner, "Need for Continued Economic Regulation of Air Transport," 41 Journal of Air Law and Commerce 793, 795 (1975). (hereafter Brenner).

175. Brenner, *supra*, at 795; see also, Lloyd-Jones, *supra*, at 835.

instantaneous perishability of a service creates a substantial incentive for the firm faced with high capital costs and low load factors to price at anything above short-run marginal costs.¹⁷⁶ While adequate to gain short-term advantage, such pricing will not allow a firm to maintain itself over the long-term. Whatever the apparent competitive nature of the industry in the short-term, therefore, the long-term competitive outlook would be bleak.

One industry that well exemplifies these problems with maintaining competition is the airline industry. The service provided by an airline is a passenger seat. When a 250 seat airplane flies from Boston to Tallahassee, therefore, there is a potential to serve 250 persons. Immediately upon commencement of the flight, however, if only 100 seats are filled, the "service" provided by the remaining seats is wasted. Airline service, in other words, is consumed immediately at the time it is offered or it is unutilized.¹⁷⁷ It cannot be inventoried. The impact on the airline industry has been significant: airline bankruptcies have been frequent; the concentration of firms has increased; and, while some discount fares exist, rates in general have gone up. The situation, in short, has not only been destructive to firms currently in the marketplace, it has been a barrier to new entry as well.¹⁷⁸

176. Brenner, *supra*, at 795.

177. Brenner, *supra*, at 795.

178. Rasenberger, *supra*, at 866.

The telecommunications industry has similar characteristics. It is a highly peaked industry with low load factors. The "production" of the service must occur instantaneously with the demand for the service. It is not subject to inventory. Moreover, the telecommunications industry (particularly that aspect of the industry serving data needs and the like) is highly capital intensive. The synergistic impacts of high capital costs, perishability of service, low load factors and new entrants should be of concern to those examining long-term competition in the interexchange telecommunications industry.

SECTION 15: Short-Term Economic Conditions.

For perfect competition to exist, economic theory counsels that the market must have a multiplicity of firms selling a homogenous product. The presence of any given firm in the market should have no impact on the market.¹⁷⁹ A firm, in short, is to be a price-taker, not a price-maker.¹⁸⁰ Workable competition, as well, should involve price-takers.

179. See, E. Fama and A. Laffer, "The Number of Firms and Competition," 63 American Economic Review 670 (1972).

180. The "critical ingredient" to a competitive market is not the number of firms, but rather the fact that every economic agent is so small, relative to the market as a whole, that it cannot exert a perceptible influence on price. Ferguson and Gould, *supra*, at 223.

One way to determine whether an industry is comprised of price-takers is to track the prices charged by that industry during a variety of short-term economic conditions.¹⁸¹ As a price-taker, for example, the price of a product should go down during depressed economic times. Lower prices will drive demand up to offset the decreased demand caused by the economic downturn.

It is the corollary of these principles, however, which is important for purposes of examining workable competition. If an industry maintains constant prices through a variety of short-term economic conditions, it is likely that the industry does not encompass price-takers. Demand is constrained because of the external conditions, but prices are maintained. Constraining output while setting prices at supra-competitive levels is the very definition of monopolistic pricing.¹⁸²

This measure of competitiveness is particularly appropriate for the interexchange telecommunications industry. The demand for telephone service is particularly sensitive to short-term economic conditions. Interexchange usage sees significant declines during times of

181. See, generally, F. Mills, Prices in Recession and Recovery (1936); see also, Trucking Regulation, *supra*, at 17.

182. Ferguson and Gould, *supra*, at 281 - 282.

economic hardships. Accordingly, carriers should be expected to react by reducing prices.

It is not at all clear, however, given the regulated monopoly position that AT&T has historically held, and the limited time that the interexchange industry has been populated with more than one firm, that sufficient experience would exist to make a determination on this point. Nevertheless, over time, it should be possible to determine whether the interexchange industry is engaging in monopolistic pricing throughout economic downturns.

PART II: FINDINGS

1. MARKET DEFINITION: It is inappropriate to discuss whether workable competition exists in the interexchange telecommunications industry. The presence or workable absence of competition must instead be determined for particular markets. Delimiting a market involves three determinations: (1) ascertaining whether there is active rivalry; (2) ascertaining whether there is a commonality among buyers; and (3) ascertaining whether there is a degree of product substitutability for those buyers.

2. CONSUMER INFORMATION: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether there is adequate means for consumers to obtain market information. Decisionmakers should inquire into whether, instead of having genuine competition, interexchange consumers rely upon "indexes of quality," such as trade marks, brand names, company reputation and company size and age. In addition, inquiry must be made into whether shopping for interexchange service is based on habit thus providing large and established firms distinct competitive advantages over smaller and relatively unknown firms.

3. CONSUMER INFORMATION: To determine whether workable competition exists in interexchange telecommunications markets,

there must be an inquiry into whether the purchase of interexchange service is of the nature that will lead consumers to make "genuine decisions" about the purchase of products or service. Characteristics leading to such decisionmaking include expenditures which are subjectively thought to be major and which are fairly rare, and the purchase of new products (or the first purchase of a particular product).

4. CONSUMER INFORMATION: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether consumers can perform the mathematical calculations necessary to make rational interexchange decisions. This determination will involve an examination of the complexity of the calculations necessary to make informed price comparisons as well as an examination of the ability of consumers to perform the needed calculations.

5. CONSUMER HURDLE RATES: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into the three items that govern the extent of consumer responsiveness to price changes by interexchange carriers even assuming that the consumer knows of the price change, understands its significance and has alternatives which offer a more desirable choice. The first factor is the investment which the

consumer must make to effectuate the change. The second is the potential savings that might arise from making the investment in the change. The third is the consumer's desired rate of return, including the premium which the consumer will demand to compensate for the uncertainty of the revenue stream consisting of the projected, but uncertain, savings. The workable competitiveness of various markets can be determined in part by the class hurdle rate for new investments.

6. EXTERNAL CONSUMER CONSTRAINTS: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether external benefits exist arising from the consumption of interexchange service, which benefits interfere with competition. The inquiry should examine whether a person feels compelled, or indeed is compelled, to purchase a particular level of interexchange service, thus making the demand curve for such service more inelastic.

7. EXTERNAL CONSUMER CONSTRAINTS: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether there may exist some external environmental factor that systematically exerts predominant influence over consumer decisionmaking and denies the benefits of an otherwise competitive market.

8. PRODUCT DIFFERENTIATION: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into product differentiation. The impact of product differentiation is to convert a single multi-product market into multiple single product markets in which there is no competition. The inquiry must be two-fold. First, is product differentiation occurring in fact, which differentiation is adversely affecting workable competition? Second, is interexchange service for the market at issue the type of service which is more susceptible to product differentiation than others? Three characteristics of differentiated products stand out: (1) they are bought by consumers (rather than by producers); (2) they are purchased infrequently (a factor that prevents the consumer from "experimenting" and thus becoming familiar with the competing brands); and (3) they are complex in design or composition, thus making it difficult for the consumer to acquire the knowledge that would be needed to make an informed choice.

9. ADVERTISING IMPACTS ON CONCENTRATION: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into the impacts of advertising. Advertising expenditures by larger interexchange firms overshadow those of smaller firms with the consequence that the larger firms are bound to gain at the expense of the smaller ones.

10. ADVERTISING AS BARRIER TO ENTRY: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether the level of advertising expenditures has the effect of blocking entry into the industry. The need for such an inquiry is particularly acute for a market like interexchange service, a market that is not marked by inherent product distinctions. In addition, there must be a determination of whether the problem of advertising needs as an entry barrier is made more acute by the presence of multiproduct firms in the interexchange markets.

11. TIE-INS: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether market power can be exercised to create tie-ins by interexchange carriers. Decisionmakers should look at the potential for "voluntary" tie-ins. They should inquire into whether the interexchange market is marked by attributes giving rise to "voluntary" tie-ins. Those include a presence of companies that have a high name recognition, that have close geographic proximity to the industry subsidiaries, and that engage in promotional acts that link the primary (tying) and non-primary (tied) subsidiaries.

12. REVERSE COMPETITION: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether conditions exist conducive to the presence of reverse competition. In making this inquiry, decisionmakers should recognize that reverse competition is most probable where coupled with market deficiencies that prevent consumers from exerting countervailing pressures.

13. VERTICAL INTEGRATION: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether workable competition exists at every stage of the industry. Decisionmakers should look at whether vertical integration has occurred which will interfere with workable competition. Most problematic, from the consumer-side perspective, is whether there exists, or whether the potential exists, for anticompetitive joint ventures.

14. INTERLOCKING DIRECTORSHIPS: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether the competitiveness of the industry is affected by the existence of interlocking directorships. Indirect interlocks of directorships are of particular concern. The interlock directly between competitors is but one. An interlock between competitors and major customers is another, as

is an interlock between competitors and common major institutional investors or input suppliers. An interlock between competitors and common financial institutions also gives rise to concern.

15. CAPABILITY FOR COLLUSION: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether there is the ability and propensity for price collusion among market participants. It is not sufficient to examine the current behavior of firms. Instead, the market structure must be reviewed to determine whether collusion is possible. Decisionmakers must determine whether the market characteristics which tend to support collusive behavior are present. These include: (1) frequent, small and regular purchases by consumers; (2) posted prices or tariffs; (3) product homogeneity; and (4) a well-defined industry social structure, either formal or informal.

16. ELASTICITY OF DEMAND: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into the elasticity of consumer demand. It is through this elasticity that the market recognizes close substitutes. Inelasticity can serve as a surrogate measure for a number of different situations. It can indicate a lack of meaningful alternatives. It can indicate the presence of high search costs associated with gains of uncertain magnitude or duration. It can indicate brand loyalty, habit

buying or significant product differentiation. It can indicate genuine indifference as to price. Whether or not a more inelastic demand is indicative of "genuine" consumer price indifference or is evidence of an unrelated market failure, an inelastic consumer demand by definition is associated with a non-competitive market.

17. SIZE OF CONSUMER: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into the size of buyers in the relevant market. In addition to having a multiplicity of sellers in a market for it to be considered workably competitive, each buyer in the market must also be so small as to be unable to affect price. Unquestionably, the size of the buyer affects the substitutes which are available to that buyer and, therefore, the price elasticity of demand. If a large buyer can obtain "special consideration," the market is less competitive. Special considerations can take the form of rebates, special credit terms, free additional services and the like.

18. LOAD CHARACTERISTICS: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into the load characteristics in the market. Among those characteristics are the perishability of services, capital intensity, peak demands and industry load factors. Decisionmakers must determine whether these identified load characteristics tend to

create market entry barriers which are difficult for a new firm successfully to overcome. Moreover, decisionmakers must determine whether these characteristics allow existing firms to offer pricing schemes that rebound to the detriment of smaller firms and to the advantage of larger firms.

19. SHORT-TERM ECONOMIC CONDITIONS: To determine whether workable competition exists in interexchange telecommunications markets, there must be an inquiry into whether the industry is comprised of price-takers for the market in question. One way to test this is to track the prices charged by the interexchange industry during a variety of short-term economic conditions. As a price-taker, the price of a product should go down during depressed economic times. It is the corollary of these principles which is most important for purposes of measuring workable competition. If an industry maintains constant prices through a variety of short-term economic conditions, it is likely that the industry does not encompass price-takers.

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APPENDIX A

DEFINING COMPETITION

In any effort to determine whether competition exists in the interexchange telecommunications market, it is first important to define precisely the type of competition about which inquiry is to be made. "Competition" can be classified into several forms.¹⁸³ One model proposes a three-part taxonomy.¹⁸⁴ First, there can be side-by-side competition. In this instance, consumers have a choice of obtaining service from more than one company. Second, there can be area competition. This involves multiple firms seeking to serve the same territory. Finally, there can be displacement competition. The existing firm, under these conditions, would either sell to a new entrant or would remain to compete in side-by-side competition.¹⁸⁵

183. See, e.g., R. Caywood, Electric Utility Rate Economics (1956). Caywood states, for example, that there are five types of electric "competition": (1) a consumer can generate her own electricity; (2) a consumer can use substitute natural gas; (3) a consumer can locate in an area served by a lower-cost utility; (4) a consumer can seek to municipalize the utility; or (5) a consumer can simply cut back on energy use.

184. See, Comment, "A Re-Examination of Competition in Gas and Electric Utilities," 50 Yale Law Journal 875 (1941).

185. Compare, Collins, "Electric Utility Rate Regulation: Curing Economic Shortcomings Through Competition," 19 Tulsa Law Review 141, 169 - 170 (1983).

Competition, by definition, involves the substitutability of goods and services.¹⁸⁶ This substitutability can be either direct or indirect.¹⁸⁷ It can involve, for example, the substitution of natural gas for manufactured gas or electricity for natural gas. It can involve the substitution of express freight for local freight. It can involve the substitution of mail for interexchange telecommunications service. It can involve the substitution of motor carriers for railroads and of air freight for motor carriers.¹⁸⁸

In the debate over interexchange carrier deregulation, the type of competition to be examined for small business and residential ratepayers in particular involves direct, or side-by-side, competition.¹⁸⁹ The equivalent of intermodal transportation alternatives has not yet reached the bulk of the interexchange consumers.¹⁹⁰ The average residential customer, for

186. See, e.g., Lake, *supra*, at 223 - 227.

187. Lake, *supra*, at 224.

188. See, e.g., Samuels, "Public Utility Ratemaking and Competitive Structure--Carterfone in Jeopardy," 20 Wayne Law Review 819, 823 (1974).

189. This is also sometimes known as "active rivalry." See generally, Reiter, "Competition and Access to the Bottleneck: The Scope of Contract Carrier Regulation Under the Federal Power and Natural Gas Acts," 18 Land and Water Law Review 1, 6 (1983); see also, W. Frilham, Jr., The Fight for Competitive Advantage (1972).

190. The telecommunications "equivalent of intermodal alternatives" are considered to be, for example, switching to microwave from long distance telephone service or switching to cable television from local exchange service.

example, has no choice but to use the interexchange carriers.¹⁹¹
Moreover, the average residential ratepayer would be unable to invest the capital necessary to make what is effectively an interindustry change.¹⁹²
In sum, the type of competition at issue in the current telecommunications debate involves the potential of MCI to compete against AT&T to compete against U.S. Sprint.

191. The Federal Communications Commission, for example, has considered a variety of alternatives to increase competition in the provision of telephone service, including private microwave systems, Allocation of Frequencies in the Bands Above 890 Mc., 27 F.C.C. 359 (1959); specialized common carrier microwave systems, Establishment of Policies and Procedures for Consideration of Applications to Provide Specialized Common Carrier Services in the Domestic Public Point-to-Point Microwave Radio Service and Proposed Amendments to Parts 21, 43 and 61 of the Commission Rules, 29 F.C.C.2d 870 (1971); and communications satellites, Authorized Entities and Authorized Users Under the Communications Satellite Act of 1962, 4 F.C.C.2d 421 (1966); 6 F.C.C.2d 593 (1967).

192. Compare, Pace, supra.

APPENDIX B

DEFINING THE MARKET

The second level of inquiry in an analysis of the presence of competition is a market definition. According to one commentator, "a market simply defined is an area within which a group of sellers compete for the patronage of a common group of buyers."¹⁹³ As this points out, the first two fundamental characteristics involve: (1) that there is a rivalry for the purchase decisions of buyers; and (2) that there be a commonality amongst the sought-after buyers. In addition, an ideal market has one good inside and all other goods outside.¹⁹⁴

The delineation of an economically relevant market involves an assessment of the degree of product substitutability. A market is an "area of trading," which can be defined geographically or in terms of product differential.¹⁹⁵ A market is the "scene, or scope, of operations and economic forces that determines the character and amount of the product and the terms on which it is disposed of."¹⁹⁶ For goods or service to be in

193.Pace, *supra*, at 725.

194.Shepherd, "Anatomy of a Monopoly: (I) Excess Capacity and the Control of Price," 11 Antitrust Law and Economics Review 103, 110 (1979). (hereafter Shepherd).

195.J. Clarke, Competition as a Dynamic Process, at 105 (1961) (hereafter Dynamic Process).

196.Dynamic Process, *supra*, at 104 - 05.

the same "product market," they must be reasonably interchangeable in price, use and quality.¹⁹⁷ For goods or services to be in the same "geographic market," they must be offered in an area "within which the seller of the particular product or service operates and within which purchasers can, from a practical standpoint, obtain such products or services."¹⁹⁸

The most common method of determining market limitations is to consider the cross-elasticities of demand.¹⁹⁹ If products are in different markets, a price change in "the" good does not affect the amount used of any other good and vice versa.²⁰⁰ A different method of delimiting markets is to define "distinctive product or geographic gaps in the chain of production."²⁰¹ Those "gaps" indicate product and geographic "boundaries."

Market definition is not uncommon to decisionmakers who work with regulated firms. For example, market definition is crucial to antitrust

197.Lipson, "Monopolization: Traditional Standards and Future Directions," 47 Antitrust Law Journal 1115, 1117 (1978). (hereafter Lipson).

198.Lipson, *supra*, at 1117.

199.See generally, N. Kaldor, "Mrs. Robinson's 'Economics of Imperfect Competition'," 1 Economica 335 (1934); R.W. Pfouts and C.E. Ferguson, "Market Classification in Theory and Policy," 26 Southern Economics Journal 111 (1959).

200.Shepherd, *supra*, at 110.

201.Pace, *supra*, at 725, 760.

analysis. Whether it be a claim of monopolization or a challenge to an allegedly anticompetitive merger, to assert that competition has been either lessened or eliminated depends upon a determination of in what market the competition was to occur in the first instance. As is apparent, in other words, the telecommunications market of rural residential customers, for example, would be significantly different from the telecommunications market of urban commercial or industrial customers.

The leading antitrust case defining the relevant "market" is United States v. E.I. DuPont De Nemours.²⁰² In DuPont, the United States charged the company with monopolizing or attempting to monopolize in the cellophane industry. While DuPont produced almost 75 percent of the cellophane in the country, cellophane constituted less than 20 percent of all "flexible packaging material" sales.²⁰³ The government asserted in DuPont that cellophane and other wrapping materials were neither "substantially fungible nor like priced."²⁰⁴ The U.S. Supreme Court disagreed. The relevant market, the Court said, "depends upon the availability of alternative commodities for buyers: i.e., whether there is a cross-elasticity of demand between cellophane and the other wrappings." The interchangeability, the Court continued, "is largely gauged by the

202.351 U.S. 377 (1956).

203.351 U.S. at 379.

204.351 U.S. at 380.

purchase of competing products for similar uses considering the price, characteristics and adaptability of the competing commodities."²⁰⁵ A "market," the Court concluded, is "composed of products that have reasonable interchangeability for the purpose for which they are produced--price, use and qualities considered."²⁰⁶

Market definition is often discussed, also, in the context of the grant or not of certificates of public convenience and necessity. Entry regulation is often constrained by requirements that new participants in the market first obtain a certificate of public convenience and necessity.²⁰⁷ In deciding upon whether a new motor carrier entrant is required by the public's "convenience and necessity," for example, the Interstate Commerce Commission considers whether the "same service" is being provided in the "same territory."²⁰⁸ The issue is whether the new service provides a "complete substitute."²⁰⁹

²⁰⁵351 U.S. at 380 - 381.

²⁰⁶351 U.S. at 404.

²⁰⁷Lake, supra, at 208 - 229.

²⁰⁸Lake, supra, at 221 - 227, see also, Comment, "Motorbus Competition in Texas: A Unique Position," 27 Texas Law Review 515 (1949).

²⁰⁹Lake, supra, at 226. A different commentator speaks of the "fungibility" of products. Garfield, "Regulation, Competition and Your Local Power Company," 1974 Utah Law Review 785, 790 (1974).

In sum, in assessing whether competition exists in the interexchange telecommunications market, decisionmakers must first devote their attention to a market definition.²¹⁰ A market is to be defined first by whether there is rivalry; second by whether there is a common group of buyers; and third, by whether there exist closely substitutable products or services. The primary means to determine whether substitutes are "close enough," either from a product or from a geographic perspective, to constitute the "same" market is to look at cross-elasticities. If a change in the price of one product will significantly affect the demand for the other, the products are to be deemed to be in the same market. More generally, decisionmakers are to determine whether products are "fungible" or whether they are "complete substitutes."

210. See, e.g., Hanson, *supra*, at 122.

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