STATEMENT OF GUSTAVO BAMBERGER

I. INTRODUCTION AND SUMMARY.

1. I am a Senior Vice President of Lexecon, a consulting firm that specializes in the application of economics to legal and regulatory issues. I received a B.A. degree from Southwestern at Memphis, and M.B.A. and Ph.D. degrees from the University of Chicago Graduate School of Business. I have previously submitted testimony and reports to the Federal Communications Commission ("the Commission"). I also have provided expert testimony to the U.S. Senate, the Department of Transportation, the Federal Energy Regulatory Commission, the International Trade Commission, state regulatory agencies and federal courts, the Canadian Competition Tribunal and the High Court of New Zealand. My curriculum vitae is attached as Exhibit A.

2. I have been asked by Fox Cable Networks Group to review and respond to the Commission's request for comments on the effect of requiring multichannel video programming distributors ("MVPDs") to offer "*a la carte*" pricing of individual networks.[1] As I explain in this statement, I have reached the following conclusions:

- "Bundling" of products is ubiquitous in the U.S. economy, and typically reduces costs and thus is economically efficient;
- "Bundling" by MVPD providers reduces costs and is economically efficient; and

---

1. See "Comment Requested on *A La Carte* and Themed Tier Programming and Pricing Options for Programming Distribution on Cable Television and Direct Broadcast Satellite Systems," DA 04-1454 (May 25, 2004). The Commission's Public Notice distinguishes between permissive *a la carte* (in which MVPDs would be allowed to offer bundles of networks) and pure *a la carte* (in which bundling by MVPDs would be prohibited). The negative effects of *a la carte* that I discuss in this statement apply to both types of *a la carte* pricing.

- The imposition of *a la carte* pricing likely would harm consumers in a variety of ways: (1) fewer networks would be available; (2) consumers would pay more for MVPD service; and (3) MVPD providers would reduce investment, thereby reducing their ability to offer innovative products and services.

3. The remainder of my statement is organized as follows. In Section II, I explain that bundling typically reduces costs; I also discuss why bundling reduces costs in the MVPD industry. In Section III, I explain that the imposition of an *a la carte* pricing regime likely would lead to: (a) fewer cable networks; (b) higher consumer prices; and (c) less investment by MVPD providers.

II. "BUNDLING" OF MVPD NETWORKS IS ECONOMICALLY EFFICIENT.

A. "Bundling" is Common and Typically Reduces Costs.

4. "Bundling," the practice of selling two or more products together for one price – sometimes also referred to as "tying" – is common throughout the U.S. economy.[2] For example, in a recent study, Ahlborn, Evans, and Padilla (2003) explain:

> Tying exists when the seller of a product requires his purchasers to take another product as well. The most robust statement one can make about tying is that it is ubiquitous. Consider the following examples: shoes are sold in pairs; hotels sometimes offer breakfast, lunch or dinner tied with the room; there is no such thing as an unbundled car; and no self-respecting French restaurant would allow its patrons to drink a bottle of wine not coming from its cellar.

Newspapers (individual sections are not sold separately) are another example of bundling.

5. Because bundling is ubiquitous, it is likely to be economically efficient. As Ahlborn, Evans, and Padilla explain: "Tying may result in lower production costs. It may also reduce transaction and information costs for consumers and provide them with

---

2. "Tying" sometimes has an antitrust connotation different from "bundling." For the purposes of this statement, I do not distinguish between "tying" and "bundling."

increased convenience and variety. The pervasiveness of tying in the economy shows that it is generally beneficial – it could not survive in competitive markets if it were not."

B. "Bundling" of Networks by MVPD Providers Reduces Costs.

6. Proponents of *a la carte* pricing suggest that consumers' expenditures on MVPD programming would fall if *a la carte* pricing were introduced, because consumers would choose and pay for only those networks they want to watch. This suggestion is based on the apparent assumption that average per channel prices in an *a la carte* regime would be similar to average per channel prices for currently bundled networks. But average *a la carte* prices could be expected to be similar to average per channel prices for currently bundled networks only if *a la carte* pricing could be imposed at little or no cost.

7. If, instead, bundling networks substantially reduces MVPD costs, the imposition of *a la carte* pricing would necessarily increase those costs substantially, and such a cost increase must be included in any evaluation of the effects of imposing *a la carte* pricing. A recent study of the cable industry by the U.S. Government Accounting Office ("GAO") concludes that *a la carte* would be costly to impose, which implies that bundling networks substantially reduces MVPD costs – that is, bundling networks allows MVPD providers to avoid the costs that would have to be incurred to implement *a la carte* pricing.

8. The GAO identified two major types of costs associated with the imposition of an *a la carte* pricing regime: (1) hardware costs (in the form of "addressable converter boxes"); and (2) customer service costs. In particular, allowing consumers to select which networks to purchase would impose substantial hardware costs on MVPD providers because consumers would need to have an "addressable

converter box" on every television set attached to the MVPD provider.[3] Furthermore, I understand that offering *a la carte* pricing on analog cable systems may require changes in how MVPD signals are delivered to consumers (e.g., scrambling analog broadcasts).[4]

9. MVPD providers would have to employ more customer service personnel to handle customer requests and questions if all networks were available on an *a la carte* basis.[5] MVPD providers also would have to develop and maintain substantially more complicated billing systems if an *a la carte* pricing regime were imposed. Finally, the imposition of an *a la carte* pricing regime would increase marketing costs, as different networks – especially recently launched networks – attempted to gain new viewers.

10. Bundling networks also reduces (non-monetary) costs borne by MVPD service buyers – for example, consumers do not have to make a large number of choices about which networks to purchase. Similarly, bundling networks likely reduces consumer "search" costs. For example, a consumer can learn about a new – bundled – network simply by changing channels; in an *a la carte* environment, learning about new networks could involve substantial time and trouble.

III. IMPOSING *A LA CARTE* PRICING WOULD HARM ALL OR MOST CONSUMERS OF MVPD SERVICES.

A. The Imposition of an *A La Carte* Pricing Regime Would Reduce the Availability and Quality of Programming.

11. If the imposition of *a la carte* pricing substantially reduced the average number of networks purchased by MVPD customers – as the proponents of a la carte

---

3. U.S. GAO, "Issues Related to Competition and Subscriber Rates in the Cable Television Industry," October 2003 ("GAO"), at 32.
4. I understand that such changes may not be feasible with current technology. See National Cable & Telecommunications Association, "The Pitfalls of A La Carte: Fewer Choices, Less Diversity, Higher Prices," May 2004, at 14-5.
5. See GAO, at 33.

pricing apparently intend – many networks would lose substantial numbers of subscribers. In particular, most consumers would purchase the most popular networks – like ESPN, TBS, and Fox News – on an *a la carte* basis, but relatively few consumers would purchase less-watched networks on that basis. That is, less-watched networks would account for most of the losses in subscribers. Even in a permissive *a la carte* regime – that is, if bundled pricing were not prohibited – less-watched networks likely would account for most subscriber losses.

12. Such subscriber losses could threaten the viability of these networks. To see why, consider the business model of most networks. Programmers incur costs to launch new networks, and to supply programming for those networks. In general, those costs are largely fixed with respect to the number of viewers who watch the network's programming. That is, a network's costs are largely unaffected by a loss of viewers. In this sense, MVPD networks differ from most businesses, which have costs that vary directly with customer levels. For example, General Motors' costs fall if it sells fewer cars.

13. A substantial portion of most network's revenues, however, vary with the level of viewership – in particular, advertising revenues. According to the GAO report, its analysis of 79 networks showed that advertising accounted for almost half of those networks' revenues.[6] As a result, a substantial decline in a network's viewership would substantially reduce its advertising revenues and thus its total revenues. A decline in the number of subscribers to a network also likely would result in a reduction in network license fees.[7] However, because the network's costs would be largely unaffected, these declines in revenue would make the network less profitable and thus less financially viable.

---

6. GAO, at 34.
7. A network's license fees would decline as its subscribers fell unless the network could increase its license fees enough to offset the decline in subscribers.

14. A network could attempt to offset at least some portion of its lost revenues by increasing license fees. For example, the GAO report noted that under an *a la carte* system, networks would rely more heavily on license fees that likely would be passed on to consumers.[8] Similarly, an analysis of *a la carte* pricing by Bear Stearns concludes: "we believe a la carte take-rates [i.e., subscriber levels] would be considerably lower than the current 100% distribution for most basic networks. And the lower the penetration, the lower the advertising revenue and the higher the affiliate fee necessary to recoup the lost distribution revenue."[9] However, increases in license fees for a particular network – which typically are passed on to consumers, at least to some extent – would tend to further reduce subscriber levels for that network (which would further reduce viewership and advertising revenues). Bear Stearns reports that "[w]e believe that many of the smaller, nascent networks would find it difficult to survive in an a la carte environment, reducing consumer choice."[10]

15. Less-watched networks also could attempt to reduce their costs by investing less in programming, thereby likely reducing program quality. But a reduction in program quality likely would reduce demand for the network, which would lead to further reductions in subscribers, and further associated declines in revenues from advertising and license fees.

16. Thus, the imposition of *a la carte* pricing likely would reduce the number and diversity of available networks, or reduce the quality of programming shown on those networks (or both). For the same reasons (e.g., likely lower advertising and license fee revenues), fewer networks likely would be launched in the future.

17. Furthermore, a reduction in the number of less-watched networks may reduce competition among networks. For example, the National Geographic Channel

8. GAO, at 36.
9. Bear Stearns, "A La Smart," March 29, 2004.
10. Bear Stearns, at 5.

likely competes for viewers with other networks, such as the Discovery Channel. If the National Geographic Channel were not viable if *a la carte* pricing were imposed, the Discovery Channel would face less competition. If that reduction in competition from the National Geographic Channel allowed the Discovery Channel to raise its price (i.e., license fee) or reduce the quality of its programming, purchasers of the Discovery Channel would be harmed even if they placed little or no value on the availability of the National Geographic Channel.

B. The Imposition of an *A La Carte* Pricing Regime Would Raise MVPD Costs and Prices Per Network.

18. As I have discussed, bundling networks by MVPD providers is associated with substantial cost savings. Thus, imposing *a la carte* pricing would impose substantial costs on MVPD providers by preventing them from exploiting those cost savings.

19. Because imposing *a la carte* pricing likely would substantially raise MVPD costs, average costs per network per MVPD subscriber would increase substantially. I illustrate why costs per network per MVPD subscriber would increase with a simple example.

20. Suppose that an MVPD provider has 1,000 subscribers who each buy a bundle of programming that consists of 50 networks. In this example, the average cost per network per subscriber can be thought of as the MVPD's total costs divided by 50,000 (i.e., 1,000 subscribers times 50 networks).

21. In general, an MVPD's costs increase as its number of subscribers/networks increase because MVPDs generally pay networks on a subscriber per month basis. Other MVPD costs – such as overhead and infrastructure costs – are largely fixed in terms of subscribers. Suppose that the MVPD in my example has total

costs of $25,000 per month; suppose further that $10,000 per month are the MVPD's costs for subscriber fees, and all other costs are $15,000 per month (which I assume, for the purposes of this example, are fixed in terms of subscribers).[11] Thus, the MVPD's average total costs per subscriber per month are $0.50 per network (i.e., $25,000 divided by 50,000).

22. Now suppose that, with the introduction of *a la carte* pricing, the MVPD would have to incur an additional $5,000 per month in costs (e.g., for increased customer support). Even if subscribers did not reduce the number of networks they purchased from the MVPD provider, average total costs per subscriber per month would rise to $0.60 per network (i.e., $30,000 divided by 50,000).

23. If, instead, some customers purchased fewer networks – which, indeed, is the rationale for *a la carte* pricing – the MVPD's costs per customer per network would increase further. Suppose that, with the imposition of *a la carte* pricing, the MVPD's customers would reduce their purchases, on average, from 50 to 25 networks.[12] As a result, the license fee portion of the MVPD's costs would fall.

24. Although the MVPD's license fee costs would fall, the networks that most consumers would not choose on an *a la carte* basis would be less-watched networks with relatively low license fees. For example, as I have discussed, most consumers likely would purchase the most popular networks – like ESPN, TBS and Fox News – on an *a la carte* basis, and relatively few consumers likely would purchase less-watched networks. Because the most popular networks have, in general, the highest license fees per subscriber, the MVPD's license fee costs would fall by a relatively small amount. In

---

11. These figures are for illustrative purposes only, and are not intended to represent the costs borne by any real-world MVPD provider.
12. For the purposes of this example, I assume that the imposition of *a la carte* pricing would reduce the average number of networks purchased by each subscriber, but would not affect the number of MVPD subscribers. In general, the number of MVPD subscribers may increase or fall if *a la carte* pricing is introduced.

my example, suppose that the MVPD's license fee costs would fall from $10,000 to $8,000 per month (i.e., the number of networks the MVPD's subscribers buy would fall by 50 percent, from 50,000 to 25,000, but license fees would fall by only 20 percent).

25. Note that if the MVPD's license fee costs fall by only $2,000 when *a la carte* pricing is imposed, the imposition of an *a la carte* pricing regime would increase total MVPD costs from $25,000 to $28,000 per month (i.e., the original $25,000 costs before *a la carte* pricing minus the $2,000 reduction in license fees plus $5,000 in additional costs associated with *a la carte* pricing). As a result, the MVPD's total costs per subscriber per month would equal $1.12 per network (i.e., $28,000 divided by 1,000 subscribers times 25 networks (i.e., 25,000)). My example shows that the imposition of *a la carte* pricing would increase MVPDs' total costs per subscriber per network for two reasons: (1) the direct costs of imposing *a la carte* pricing (e.g., additional customer service and hardware costs); and (2) the MVPD's fixed costs (i.e., those costs fixed with respect to subscriber/networks) would be "spread" over fewer subscriber/networks.

26. In general, additional costs imposed on any firm will be passed on, to at least some extent, to consumers. Because it would increase MVPD costs per subscriber per network, the imposition of an *a la carte* pricing regime likely would lead to higher MVPD prices per subscriber per network.[13]

27. The extent to which MVPD costs would increase as a result of mandatory *a la carte* pricing likely would depend, at least in part, on how *a la carte* pricing is

13. That is, average *a la carte* prices per network likely would be higher than the implicit price per network implied by the price of bundled networks. Some models in the economics literature (e.g., Gregory S. Crawford, "The Discriminatory Incentives to Bundle in the Cable Industry," unpublished, April 2004) explain that bundling can allow a firm to increase its revenues by price discriminating more effectively (which can increase or reduce consumer welfare). In these models, the average price per network can fall if bundling is prohibited. However, these models assume that there are no costs associated with unbundling. (These models also assume, implicitly, that unbundling has no effect on the availability of products in the bundle – that is, the models assume that *a la carte* pricing would not reduce the availability of networks.)

imposed. In particular, if MVPD providers would be permitted to offer bundled pricing as well as *a la carte* pricing (i.e., if bundled pricing were not prohibited), MVPD providers likely would be able to reduce the costs of implementing *a la carte* pricing by discouraging consumers from purchasing networks *a la carte*. That is, the cost savings associated with selling bundled networks instead of selling networks on an *a la carte* basis likely would give MVPD providers an incentive to price *a la carte* offerings such that the average *a la carte* price per network would be substantially higher than the average price per network in a bundle.

28. Under these conditions, a large percentage of consumers might choose to buy bundled networks even if *a la carte* pricing were available, and MVPD providers would reduce, to some extent, the costs they would incur from the imposition of an *a la carte* pricing regime. In the extreme case, almost all MVPD consumers might continue buying networks on a bundled basis, but MVPD providers would not be able to avoid all costs associated with the imposition of an *a la carte* pricing regime. For example, MVPD providers would have to modify their billing systems to allow consumers to purchase networks on an *a la carte* basis, even if almost all consumers would continue purchasing networks on a bundled basis. Also, as I have discussed, offering *a la carte* pricing on analog cable systems may require changes to how MVPD signals are delivered to consumers; such changes would be costly to implement even if almost all subscribers purchased networks on a bundled basis.

29. Thus, even if most consumers would continue to buy networks on a bundled basis, consumers' monthly fees for MVPD service likely would increase because, as I have discussed, the imposition of an *a la carte* pricing regime would impose costs on MVPD providers that likely would be passed on, at least to some extent, to consumers. If, instead, consumers purchased networks only on an *a la carte*

basis (i.e., if bundling of networks were prohibited), consumers could pay the same or more for a few networks as they currently pay for bundled service.

30. As I have discussed, if a network loses substantial subscribers as a result of the imposition of an *a la carte* pricing regime, it could respond by increasing its license fees.[14] Bear Stearns analyzed several scenarios and concluded that the prices of the most popular networks could increase by so much that consumers might have to pay as much or more for just five networks (and retransmitted broadcast networks) as they currently pay for enhanced basic cable service.

C. Imposing *A La Carte* Pricing Would Harm Programming Suppliers and Consumers Even if it Could be Imposed Costlessly.

31. Even if the imposition of an *a la carte* pricing regime did not impose costs on MVPD providers, providers of less-watched networks likely would be harmed, as would viewers of that programming. To see why, consider the following example.

32. Suppose that an MVPD provider only offers bundled service, and the bundle includes 10 networks.[15] Suppose that a particular consumer values watching each of these networks, but that the consumer places relatively little value on some networks. In particular, suppose that the consumer places a monthly value on the 10 networks as follows:

---

14. A network that loses substantial numbers of viewers also could be forced out of business.
15. This example is for illustrative purposes only.

Network A	$20.00
Network B	$12.00
Network C	$10.00
Network D	$8.00
Network E	$5.00
Network F	$0.10
Network G	$0.10
Network H	$0.10
Network I	$0.10
Network J	$0.10[16]
Total Value	$55.50

33. If the price of a bundle of networks is $40.00 per month, the consumer would choose to purchase the bundle.[17] Furthermore, the consumer likely would watch networks F through J, at least some of the time (i.e., because the consumer values having access to the programming on those networks).

34. Now suppose that an *a la carte* pricing regime were imposed, and the *a la carte* price of networks F through J were set at $0.25. In this case, the consumer would not purchase those networks because the price of each exceeds the customer's valuation of each. As a result, networks F through J would each lose a viewer. (Even if bundling were not prohibited, networks F through J would each lose a viewer if the consumer in this example did not choose to purchase the bundle.)

35. Because networks F through J would lose viewers (i.e., all viewers who value watching those networks, at least at some time, when they are part of a bundle but place a value of less than $0.25 per month on those networks) as a result of *a la carte*

---

16. The low values for networks F-J could reflect an "option value" that a consumer places on the availability of those networks. That is, a consumer could place a value on having access to a network because that access gives the consumer an opportunity to watch a program on that network in the future, even if the consumer currently has no plans to watch that network's programs.
17. The difference between the $55.50 value and the $40.00 price of the bundle is known as "consumer surplus" and measures the benefit the consumer derives from buying the bundle.

pricing, each network's revenues likely would fall but its costs would not.[18] Thus, the profits of networks like F through J would fall, and one or more of those networks might not be able to cover its costs. As a result, if any of those networks were forced out of business – or forced to reduce program quality – consumers who value those networks highly (i.e., consumers who would be willing to pay $0.25 per month or more on an *a la carte* basis) would be harmed.

36. Furthermore, even if the viability of networks F through J were not threatened by the loss of viewership resulting from the imposition of *a la carte* pricing, the decline in viewership is economically inefficient. In general, transactions in which a consumer values receiving a good more than the cost of producing that good are economically efficient. In my example, the marginal costs of providing networks F through J to one consumer are zero – that is, once the network is launched, and the network's programming is created, providing it to one more consumer is costless. The value the consumer places on receiving each of those networks, however, is $0.10. If *a la carte* pricing were imposed, and the consumer stopped watching those networks (because the monthly price exceeded the consumer's valuation of that network), those $0.10 per network would be lost to society, and no costs would be saved because the marginal cost of providing those networks to that consumer are zero. Thus, total social welfare would fall.

37. In general, the marginal cost of allowing a consumer to watch a network that already exists is zero. That is, MVPD programming is an example of what economists call a "public good" – once programming is created, additional viewers can be served at no additional social cost. As a result, economic efficiency and total welfare is enhanced if anyone who places a positive value on watching the network is allowed to

18. Indeed, the network's costs could increase if it increased its marketing expenditures in response to its loss of subscribers.

do so at a zero price. However, few if any networks likely would be available at an *a la carte* price of zero (i.e., few if any networks would rely only on advertising revenues). As in my example, some consumers would therefore not purchase networks on which they place some value, even though that value exceeds the cost of providing the existing programming to one more consumer. Thus, *a la carte* pricing can result in economically inefficient outcomes even if it could be imposed costlessly.[19]

D. The Imposition of an *A La Carte* Pricing Regime Could Reduce Investments by MVPD Providers.

38. Proponents of *a la carte* pricing suggest that if such pricing were available, the average monthly consumer bill for MVPD services would fall because most consumers would purchase fewer networks. As I have discussed, this view ignores the costs of imposing *a la carte* pricing, and the effect of advertising and license fee revenue reductions. Thus, there is no basis to conclude that average monthly bills would fall even if consumers purchased many fewer networks under an *a la carte* pricing regime.

39. Nevertheless, if, as proponents suggest, consumers would spend less on MVPD services if *a la carte pricing* were imposed, MVPD revenues from consumers would fall. (MVPDs' advertising revenues also would decline if viewership levels fell.) As I have discussed, the imposition of *a la carte* pricing would impose substantial costs on MVPD providers. As a result of both changes – lower revenues and higher costs – MVPD profits likely would fall.

40. A decline in MVPD profitability would reduce MVPDs' incentives (and ability) to undertake new investments. As a result, the development of new services likely would be slowed (for example, the continued rollout of digital networks in rural

---

19. Paying for a bundle of networks is similar to a "two-part" tariff in which a consumer pays a fixed fee and pays a marginal cost of zero for watching additional networks.

areas) by the imposition of *a la carte* pricing, which would harm consumers who would otherwise have received those services.

Gustavo Bamberger

July 14, 2004

Exhibit A

GUSTAVO E. BAMBERGER **July 2004**
Economist

Business Address: Lexecon Inc.
332 South Michigan Avenue
Suite 1300
Chicago, IL 60604 (312) 322-0276

Home Address: 5134 S. Woodlawn Ave
Chicago, IL 60615 (773) 955-5836

EDUCATION

Ph.D., UNIVERSITY OF CHICAGO, 1987, GRADUATE SCHOOL OF BUSINESS

M.B.A., UNIVERSITY OF CHICAGO, 1984, GRADUATE SCHOOL OF BUSINESS

B.A., SOUTHWESTERN AT MEMPHIS, 1981

EMPLOYMENT

LEXECON INC., Chicago, Illinois (3/87-Present): Senior Vice President

UNIVERSITY OF CHICAGO, (1984, 1986): Lecturer

GOVERNORS STATE UNIVERSITY, (1986): Community Professor

UNIVERSITY OF CHICAGO, (1982-1986): Teaching Assistant

UNIVERSITY OF CHICAGO, (1982-1986): Research Assistant

ACADEMIC HONORS AND FELLOWSHIPS

University of Chicago Fellowship, 1981-1984

H.B. Earhart Fellowship, 1985-1986

RESEARCH PAPERS

"Antitrust and Higher Education: Was There a Conspiracy to Restrict Financial Aid?" co-authored with D. Carlton and R. Epstein, RAND Journal of Economics, (Vol. 26, No. 1, Spring 1995, pp. 131-147).

"Antitrust and Higher Education: MIT Financial Aid (1993)," co-authored with D. Carlton, in The Antitrust Revolution: Economics, Competition, and Policy, John Kwoka and Lawrence White, eds., 1998.

"Airline Networks and Fares", co-authored with D. Carlton, in Handbook of Airline Economics, 2nd ed., Darryl Jenkins, ed., 2003.

"Revisiting Maximum Resale Price Maintenance: State Oil v. Khan (1997), in The Antitrust Revolution: Economics, Competition, and Policy, John Kwoka and Lawrence White, eds., forthcoming 2004.

"An Empirical Investigation of the Competitive Effects of Domestic Airline Alliances," co-authored with D. Carlton and L. Neumann, Journal of Law and Economics, forthcoming April 2004.

UNPUBLISHED PAPERS

"An Empirical Assessment of Predation in the Airline Industry" (1999), co-authored with D. Carlton.

TESTIMONIAL EXPERIENCE

Direct, Rebuttal and Cross-Examination Testimony of Gustavo E. Bamberger on behalf of Producer - Marketers Transportation Group, before the Illinois Commerce Commission in Docket No. 90-0007, April 24, 1990 (Direct); July 6, 1990 (Rebuttal); and May 30, 1990 and August 3, 1990 (Cross-Examination).

Testimony of Gustavo E. Bamberger in Re: United States of America v. Irving A. Rubin: In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 91 CR 44-2, December 3, 1993.

Testimony of Gustavo E. Bamberger in Re: Center for Public Resources Arbitration, E. Merck and EM Industries, Incorporated, against Abbott Laboratories, February 8, 1994.

Deposition and Testimony of Gustavo E. Bamberger in Re: In the Matter of Michael R. Sparks, Debtor: In the United States Bankruptcy Court for the Northern District of Illinois, Eastern Division, No. 92 B 21692, May 9, 1994 (Deposition and Testimony).

Joint Affidavit and Joint Reply Affidavit of John P. Gould and Gustavo E. Bamberger in Re: In the Matters of Review of the Pioneer's Preference Rules and Amendment of the Commission's Rules to Establish New Personal Communications Services: Proceedings before the Federal Communications Commission, ET Docket 93-266, Gen. Docket 90-314, July 26, 1994 (Affidavit); and August 8, 1994 (Reply Affidavit).

Statement of John P. Gould and Gustavo E. Bamberger on Implementing Legislation for the Uruguay Round of GATT (S. 2467) (Pioneer Preference Provisions) Before the Senate Commerce Commission, November 14, 1994.

Report and Deposition of Gustavo E. Bamberger in Re: Khan, et al. v. State Oil Company; In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 94 C 00035, May 30, 1995 (Report); and July 27, 1995 (Deposition).

Statement and Supplemental Statement of Alan O. Sykes and Gustavo E. Bamberger in Re: Fresh Tomatoes and Bell Peppers, Investigation No. TA-201-66, United States International Trade Commission, June 3, 1996 (Statement); and June 10, 1996 (Supplemental Statement).

Testimony of Gustavo E. Bamberger in Re: Wisconsin Public Service Corporation; WPS Energy Services, Inc.; and WPS Power Development, Inc.: Before the Federal Energy Regulatory Commission, Docket No. ER96-1088-000, July 22, 1996.

Pre-Filed Direct, Rebuttal and Re-Direct Testimony of Gustavo E. Bamberger in Re: Disapproval of Rate Filings for American Casualty Company of Reading, Pennsylvania, and Continental Casualty Company, Before the State Office of Administrative Hearings (Texas), SOAH Docket No. 454-96-0800, September 10, 1996 (Direct); September 16, 1996 (Rebuttal); and September 27, 1996 (Re-Direct).

Affidavit of Gustavo E. Bamberger in Re: Summit Family Restaurants Inc., a Delaware Corporation; HTB Restaurants Inc., a Delaware Corporation; and CKE Restaurants Inc., a Delaware Corporation vs. HomeTown Buffet, Inc., a Delaware Corporation; and Buffets, Inc., a Minnesota Corporation: In the United States District Court for the District of Utah, Central Division, No. 96 CV 0688B, September 17, 1996.

Report, Supplemental Report, Affidavit, Deposition and Affidavit of Gustavo E. Bamberger in Re: Blue Cross & Blue Shield United of Wisconsin, and Compcare Health Services Insurance Corporation v. The Marshfield Clinic and Security Health Plan of Wisconsin, Inc.: In the U.S. District Court for the Western District of Wisconsin, No. 94-C-0137-C, December 19, 1996 (Report with William J. Lynk); February 10, 1997 (Supplemental Report William J. Lynk); March 10, 1997 (Affidavit with William J. Lynk); March 18, 1997 (Deposition); and April 4, 1997 (Affidavit).

Affidavit of Dennis W. Carlton and Gustavo E. Bamberger in Re: Pacific Gas & Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company: United States of America Before the Federal Energy Regulatory Commission, FERC Docket No. ER96-1663-000, January 16, 1997.

Testimony and Prepared Statement of Gustavo E. Bamberger on behalf of Sacramento Municipal Utility District in Re: Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company: Before the Federal Energy Regulatory Commission Technical Conference on Structural Mitigation Options, Docket No. ER96-1663-000, January 17, 1997.

Affidavit, Report, Rebuttal Report and Deposition of Gustavo E. Bamberger in Re: Henry & Joann Rozema, Island Sports Center, Inc., Mark McKay, Lawrence Halida, Harriet Halida, and Kathleen Malek, on behalf of themselves and all others similarly situated v. The Marshfield Clinic, Security Health Plan of Wisconsin, Inc., North Central Health Protection Plan, and Rhinelander Medical Center, S.C.: In the U.S. District Court for the Western District of Wisconsin, No. 94-C-592-C, July 11, 1997 (Affidavit); July 23, 1997 (Report with William J. Lynk); September 2, 1997 (Rebuttal Report); and September 11-12, 1997 (Deposition).

Deposition, Testimony and Surrebuttal Testimony of Gustavo E. Bamberger in Re: Deltic Farm & Timber, Co., Inc. vs. Great Lakes Chemical Corporation: In the U.S. District Court for the Western District of Arkansas, El Dorado Division, No. 95-1090, November 13, 1997 (Deposition); December 9, 1997 (Testimony); and December 10, 1997 (Surrebuttal Testimony).

Report, Deposition and Testimony of Gustavo E. Bamberger in Re: In the Arbitration of Bandag, Incorporated, Claimant, v. Treadco, Inc., Respondent; Treadco, Inc., Counter-Claimant and Claimant, v. Bandag, Incorporated, Martin Carver, William Sweatman, J.J. Seiter, Ronald Toothaker, and Ronald Hawks, Counter-Respondent and Respondents: In the American Arbitration Association, Chicago, Illinois, No. 51 114 0038 95, May 21, 1998 (Report); August 18, 1998 (Deposition); and November 12 and 16, 1998 (Testimony).

Testimony, Affidavit, Affidavit, Report, Deposition, Affidavit and Testimony of Gustavo E. Bamberger in Re: Hamilton, et al. v. Accu-Tek, et al.: In the U.S. District Court for the Eastern District of New York, No. 95 CV 0049, July 27, 1998 (Testimony before Magistrate Judge Cheryl L. Pollak); August 13, 1998 (Affidavit); October 2, 1998 (Affidavit); October 16, 1998 (Report); November 13, 1998 (Deposition); December 12, 1998 (Affidavit); and December 29, 1998 and January 27-28, 1999 (Testimony).

Expert Report of Robert H. Gertner and Gustavo E. Bamberger in Re: BDPCS, INC., d/b/a BEST DIGITAL, and BDPCS Holdings, Inc., formerly known as Questcom, Claimants, v. U S WEST, Inc. and U S WEST Communications, Inc., Respondents: American Arbitration Association, Denver Office, No. 77 181 00204 97, July 31, 1998.

Statement of Dennis W. Carlton and Gustavo E. Bamberger in Re: Enforcement Policy Regarding Unfair Exclusionary Conduct in the Air Transportation Industry: Before the Department of Transportation, Office of the Secretary, Washington, D.C., Docket OST-98-3713, September 24, 1998.

Responsive Direct Testimony and Cross-Examination Testimony of Gustavo E. Bamberger for Intervenor Oklahoma Gas and Electric Company in Re: Joint Application of American Electric Power Company, Inc., Public Service Company of Oklahoma and Central and South West Corporation Regarding Proposed Merger: Before the Corporation Commission of the State of Oklahoma, Cause No. PUD 980000444, March 29, 1999 (Responsive Direct Testimony with Dennis Carlton); and April 21, 1999 (Cross-Examination).

Prepared Answering Testimony and Exhibits of Gustavo E. Bamberger and Dennis W. Carlton on Behalf of Oklahoma Gas and Electric Company in Re: American Electric Power Company, Inc. and Central and South West Corporation: United States of America Before the Federal Energy Regulatory Commission, FERC Docket Nos. ER98-40-000, ER98-2770-000, ER98-2786-000, April 28, 1999.

Affidavit of Gustavo E. Bamberger on Behalf of Allegheny Energy in Re: Dominion Resources, Inc. and Consolidated Natural Gas Company: United States of America Before the Federal Energy Regulatory Commission, FERC Docket No. EC99-81-000, August 5, 1999.

Rebuttal Report of Dennis W. Carlton and Gustavo E. Bamberger; Reply Report of Dennis W. Carlton and Gustavo E. Bamberger; Rebuttal Report of Dennis W. Carlton and Gustavo E. Bamberger to Professor Michael Ward; Testimony of Dennis W. Carlton and Gustavo E. Bamberger; Critique of the Memorandum of Fact and Law of the Commissioner of Competition by Gustavo E. Bamberger in Re: The Commissioner of Competition and Superior Propane Inc. and ICG Propane Inc.: Before The Competition Tribunal, No. CT-98/2, September 14, 1999 (Rebuttal Report); September 19, 1999 (Reply Report); September 27, 1999 (Rebuttal Report to Professor Michael Ward); December 13-14, 1999 (Testimony); and January 31, 2000 (Critique).

Declaration and Reply Declaration of Robert H. Gertner and Gustavo E. Bamberger In the matter of: Application by New York Telephone Company (d/b/a Bell Atlantic - New York), Bell Atlantic Communications, Inc., NYNEX Long Distance, and Bell Atlantic Global Networks, Inc., for Provision of In-Region, InterLATA Services in New York: Before the Federal Communications Commission, CC Docket No. 99-295, September 29, 1999 (Declaration) and November 8, 1999 (Reply Declaration).

Statement of Gustavo E. Bamberger and Hans-Jürgen Petersen In the matter of: Proceeding on Motion of the Commission to Investigate Performance-Based Incentive Regulatory Plans for New York Telephone Company – Track 2: Before the State of New York Public Service Commission, Case 92-C-0665, November 30, 1999.

Report and Deposition of Gustavo E. Bamberger In Re: Northwest Airlines Corp. et al., Antitrust Litigation: In the United States District Court for the Eastern District of Michigan, Master File No. 96-74711, March 31, 2000 (Report); and July 21, 2000 (Deposition).

Testimony and Cross-Examination of Gustavo E. Bamberger on Behalf of Sacramento Municipal Utility District Regarding Public Interest Issues Raised by Alternative Methods of Valuation In Re: Application of Pacific Gas & Electric Company to Market Value Hydroelectric Generating Plants and Related Assets Pursuant to Public Utility Code Sections 367(b) and 851: Before the Public Utilities Commission of the State of California, Application No. 99-09-053, June 8, 2000 (Testimony); and June 27, 2000 (Cross-Examination).

Comments on the SEC's Proposed Auditor Independence Standards, SEC File No. S7-13-00, filed with the Securities and Exchange Commission, on behalf of Arthur Andersen, Deloitte & Touche, KPMG and the American Institute of Certified Public Accountants (with Charles C. Cox and Kenneth R. Cone), September 25, 2000.

Joint Reply Declaration, Joint Supplemental Declaration and Joint Supplemental Reply Declaration of Robert H. Gertner and Gustavo E. Bamberger In the matter of: <u>Application by Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), and Verizon Global Networks Inc., for Authorization To Provide In-Region, InterLATA Services in Massachusetts:</u> Before the Federal Communications Commission, CC Docket No. 00-176 and CC Docket No. 01-9, November 3, 2000 (Reply Declaration); January 16, 2001 (Supplemental Declaration); and February 28, 2001 (Supplemental Reply Declaration).

Declaration of Robert H. Gertner and Gustavo E. Bamberger, submitted to the Federal Communications Commission, in Re: Bell Atlantic/NYNEX Merger Performance Monitoring Reports, November 30, 2000.

Testimony and Rebuttal Testimony of Gustavo E. Bamberger on Behalf of Sacramento Municipal Utility District In Re: <u>Application of Pacific Gas & Electric Company to Market Value Hydroelectric Generating Plants and Related Assets Pursuant to Public Utility Code Sections 367(b) and 851</u>: Before the Public Utilities Commission of the State of California, Application No. 99-09-053, December 5, 2000 (Testimony); and January 16, 2001 (Rebuttal Testimony).

Report, Rebuttal Report, Revised Damage Report, Deposition and Declaration of Gustavo E. Bamberger in Re: <u>Republic Tobacco, L.P. v. North Atlantic Trading Company, Inc., North Atlantic Operating Company, Inc. and National Tobacco Co., L.P.</u>: In the U.S. District Court for the Northern District of Illinois, Eastern Division, No. 98 C 4011, February 5, 2001 (Report); April 20, 2001 (Rebuttal Report); April 20, 2001 (Revised Damage Report); May 15-16 (Deposition); and November 5, 2001 (Declaration).

Joint Declaration of Robert H. Gertner and Gustavo E. Bamberger In the matter of: <u>Application by Verizon New York Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization To Provide In-Region, InterLATA Services in Connecticut</u>: Before the Federal Communications Commission, CC Docket No. 01-100, April 23, 2001.

Direct, Supplemental and Cross-Examination Testimony of Gustavo E. Bamberger in Re: <u>Petition for Approval of a Statement of Generally Available Terms and Conditions Pursuant to §252(f) of the Telecommunications Act of 1996 and Notification of Intention to File a Petition for In-region InterLATA Authority With the FCC Pursuant to §271 of the Telecommunications Act of 1996</u>: Before the Alabama Public Service Commission, Docket No. 25835, May 16, 2001 (Direct); June 19, 2001 (Supplemental); and June 27, 2001 (Cross-Examination).

Affidavit of Robert H. Gertner and Gustavo E. Bamberger In the matter of: BellSouth Telecommunications, Inc.'s Entry into InterLATA Services PursuantTo Section 271 of the Telecommunications Act of 1996: Before the Georgia Public Service Commission, Docket No. 6863-U, May 31, 2001.

Direct Testimony of Gustavo E. Bamberger In the matter of: Application of BellSouth Telecommunications, Inc. To Provide In-Region InterLATA Services Pursuant to Section 271 of the Telecommunications Act of 1996: Before the North Carolina Utilities Commission, Docket No. P-55, Sub 1022, June 11, 2001.

Direct Testimony of Gustavo E. Bamberger in Re: Consideration of the Provision of In-Region InterLATA Services By BellSouth Telecommunications, Inc. Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Mississippi Public Service Commission, Docket No. 97-AD-0321, June 15, 2001.

Direct, Rebuttal and Cross-Examination Testimony of Gustavo E. Bamberger in Re: Application of BellSouth Telecommunications, Inc. to Provide In-Region InterLATA Services Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Public Service Commission of South Carolina, Docket No. 2001-209-C, June 18, 2001 (Direct); July 16, 2001 (Rebuttal); and July 26-27, 2001 (Cross-Examination).

Affidavit of Robert H. Gertner and Gustavo E. Bamberger in Re: Consideration and review of BellSouth Telecommunication, Inc.'s pre-application compliance with Section 271 of the Telecommunications Act of 1996, including but not limited to, the fourteen requirements set forth in Section 271(c)(2)(B) in order to verify compliance with Section 271 and provide a recommendation to the Federal Communications Commission regarding BellSouth Telecommunications, Inc.'s application to provide interLATA services originating in-region: Before the Louisiana Public Service Commission, Docket No. U-22252-E, June 21, 2001.

Joint Declaration and Joint Reply Declaration of Robert H. Gertner, Gustavo E. Bamberger and Michael P. Bandow In the Matter of: Application by Verizon Pennsylvania Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization To Provide In-Region, InterLATA Services in Pennsylvania: Before the Federal Communications Commission, CC Docket No. 01-138, June 21, 2001 (Declaration); and August 6, 2001 (Reply Declaration).

Direct Testimony of Gustavo E. Bamberger in Re: BellSouth Telecommunications, Inc.'s Entry into Long Distance (interLATA Service) in Tennessee Pursuant to Section 271 of the Telecommunications Act of 1996: Before the Tennessee Regulatory Authority, Docket No. 97-00309, July 30, 2001.

Expert Report and Testimony of Gustavo E. Bamberger in Re: In the Arbitration of Legend Healthcare, Inc. v. United Healthcare Services, Inc.,et al., American Arbitration Association, Commercial Arbitration No. 65 Y 193 00194 00, August 1, 2001 (Report); and September 27, 2001 (Testimony).

Reply Declaration of Dennis W. Carlton, Hal S. Sider and Gustavo E. Bamberger In the Matter of: Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services: Before the Federal Communications Commission, CC Docket No. 01-337, April 22, 2002.

Expert Preliminary Report, Supplemental Expert Report, Rebuttal Expert Report, Deposition, Declaration, Supplemental Declaration and Declaration of Gustavo E. Bamberger in Re: Nobody in Particular Presents, Inc., v, Clear Channel Communications, Inc., Clear Channel Entertainment, Inc., Clear Channel Radio, Inc., Clear Channel Broadcasting Inc., KBCO-FM, KBPI-FM, KFMD-FM, KRFX-FM, and KTCL-FM, In the U.S. District Court for the District of Colorado, Civil Action No. 01-N-1523, May 3, 2002 (Preliminary Report); July 26, 2002 (Supplemental Report); August 20, 2002 (Rebuttal Report); September 17, 2002 (Deposition); October 31, 2002 (Declaration); January 24, 2003 (Supplemental Declaration); and July 21, 2003 (Declaration).

Comments Regarding Regulation of Broadband Internet Access Services In the Matter of Inquiry Concerning High-Speed Access to Internet Over Cable and other Facilities, GN Docket No. 00-185; In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147; In the Matter of Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, CC Docket No. 95-20; and In the Matter of 1998 Biennial Regulatory Review: Review of Computer III and ONA Safeguards and Requirements, CC Docket No, 98-10 (with Kenneth Arrow, Gary Becker, Dennis Carlton, Daniel Fischel, Robert Gertner, Joseph Kalt and Hal Sider), May 3, 2002.

Expert Report, Reply Expert Report and Declaration of William Landes, Hal Sider and Gustavo Bamberger, and Declaration, Deposition and Supplemental Declaration of Gustavo E. Bamberger in Re: Vitamin Antitrust Litigation: In the United States District Court for the District of Columbia, M.D.L. No. 1285, May 23, 2002 (Report); July 17, 2002 (Reply Report); August 1, 2002 (Declaration with Landes and Sider); August 5, 2002 (Declaration); August 9, 2002 (Deposition); and September 27, 2002 (Supplemental Declaration).

Deposition of Gustavo E. Bamberger in Re: Devin Daniels, et al v. Philip Morris Companies, Inc., et al.: In San Diego Superior Court, Case No. 719446, June 10, 2002.

Declaration of Gustavo E. Bamberger and Michael P. Bandow in Re: EB-01-1H-0352, Supplemental Response to Questions Posed by the Commission in its May 21, 2002 Letter re Verizon's Provisioning of Special Access Services, submitted to the Federal Communications Commission, July 31, 2002.

Affidavit, Expert Report and Deposition of Gustavo E. Bamberger in Re: National Association for the Advancement of Colored People (NAACP) and National Spinal Cord Injury Association (NSCIA) v. Acusport Corporation; Ellet Brothers, Inc., RSR Management Company, and RSR Group, Inc., individually and on behalf of similarly situated entities; and National Association for the Advancement of Colored People (NAACP) et al., v. American Arms, Inc., et al.: In the U.S. District Court for the Eastern District of New York, CV 99-7037 and CV 99-3999, August 20, 2002 (Affidavit); February 19, 2003 (Report); and March 6, 2003 (Deposition).

Report of Gustavo E. Bamberger in Re: Nevada Power Company v. Lexington Insurance Company et al.: In the U.S. District Court for the Southern District of Nevada, CV-S-01-0045-PMP-PAL, October 23, 2002.

Deposition of Gustavo E. Bamberger in Re: Firearm Cases: In Superior Court of the State of California, County of San Diego, Judicial Council Coordination Proceeding No. 4095, November 6, 2002.

Expert Rebuttal Report, Expert Report and Deposition of Gustavo E. Bamberger in Re: Baum Research and Development, Inc. and Steve Baum v. Hillerich & Bradsby Co., Inc.; Easton Sports, Inc.; Worth, Inc.; National Collegiate Athletic Association; and Sporting Goods Manufacturers Association: In the U.S. District Court for the Eastern District of Michigan, 98-72946, January 13, 2003 (Expert Rebuttal Report and Expert Report); and May 28-29, 2003 (Deposition).

Declaration of Gustavo E. Bamberger and Michael P. Bandow in Re: EB-01-1H-0352, Supplemental Response to Questions Posed by the Commission in its January 24, 2003 Letter re: Verizon's Provisioning of Special Access Services, submitted to the Federal Communications Commission, March 14, 2003.

Dennis W. Carlton, Janice H. Halpern and Gustavo E. Bamberger, "Economic Analysis of the News Corporation/DIRECTV Transaction," and "Response to William P. Rogerson and Daniel L. Rubinfeld and Duncan Cameron," submitted to the Federal Communications Commission, MB Docket No. 03-124, July 1, 2003; and September 8, 2003.

Expert Report, Deposition, Declaration and Testimony of Gustavo Bamberger in Re: Western Asbestos Company; Western MacArthur Company; and Mac Arthur Company, Debtors: In United States Bankruptcy Court, Northern District of California, Oakland Division, Nos. 02-46284, 02-46285, 02-46286, September 15, 2003 (Expert Report); October 21, 2003 (Deposition); November 17, 2003 (Declaration); and November 21, 2003 (Testimony).

Expert Report, Deposition and Testimony of Gustavo E. Bamberger in Re: In the Matter of the Arbitration Between: Rangemark Insurance Services, Inc., Petitioner vs. Claremont Liability Insurance Company, Respondent, October 24, 2003 (Expert Report); November 14, 2003 (Deposition); and February 12, 2004 (Testimony).

Joint Declaration and Joint Reply Declaration of Gustavo E. Bamberger and Bradley N. Reiff and Deposition of Gustavo E. Bamberger in Re: Currency Conversion Fee Antitrust Litigation: In the U.S. District Court for the Southern District of New York, MDL Docket No. 1409, November 11, 2003 (Joint Declaration); December 18, 2003 (Deposition); and April 2, 2004 (Joint Reply Declaration).

Expert Report, Deposition and Reply Expert Report of Gustavo E. Bamberger in Re: Marketing and Management Information, Inc. v. The United States: In the U.S. Court of Federal Claims, No. 99-194C, March 16, 2004 (Expert Report); April 20-21, 2004 (Deposition); and May 6, 2004 (Reply Expert Report).

Joint Expert Witness Statement of Gustavo Bamberger, David Gillen, Margaret Guerin-Calvert, Andrew Hanssen, Jerry Hausman, Timothy Hazledine, Janusz Ordover, Robert Willig and Kieran Murray; Affidavit of Gustavo Ernesto Bamberger and Dennis William Carlton in Reply; Second Affidavit of Gustavo Ernesto Bamberger and Dennis William Carlton; and Affidavit of Gustavo Ernesto Bamberger: In the Matter of an appeal from determinations of the Commerce Commission between Air New Zealand Limited, Qantas Airways Limited, Appellants and Commerce Commission, Respondents: In the High Court of New Zealand Auckland Registry, CIV 2003-404-6590, May 21, 2004 (Joint Expert Witness Statement); June 4, 2004 (Reply Affidavit); July 2, 2004 (Second Affidavit); and July 12, 2004 (Affidavit of Gustavo Bamberger).