Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
GTE CORPORATION,	)	
	)	
Transferor,	)	File No.
	)	
and	)	
	)	
BELL ATLANTIC CORPORATION,	)	
	)	
Transferee.	)	
	)	
For Consent to Transfer of Control	)	

DECLARATION BY THOMAS W. HAZLETT, Ph.D.

INTRODUCTION

1) My name is Thomas W. Hazlett, and I am an economist specializing in telecommunications policy. I currently serve as Professor of Agricultural and Resource Economics at the University of California, Davis, where I am Director of the Program in Telecommunications Policy. I am also, during the 1998-99 academic year, a Resident Scholar at the American Enterprise Institute in Washington, D.C. I have written many papers for academic and popular publications on the topic of telecommunications regulation, and have previously served as Chief Economist of the Federal Communications Commission (1991-92). My c.v. is attached to this Affidavit as Appendix 1. I have been asked by Bell Atlantic to analyze the competitive implications of its proposed merger with GTE, and herein undertake to do so.

2) The U.S. telecommunications market today exhibits striking trends towards both consolidation and fragmentation. These distinct yet contemporaneous cross currents must be clearly understood for purposes of antitrust analysis, an analysis which seeks to separate pro-competitive from anti-competitive combinations. The seeming irony is a

product of the fact that economic integration – either vertically or horizontally – can yield substantial efficiencies for telecommunications suppliers, and these productive gains can better equip new entrants to challenge dominant incumbents. As *The Economist* summarized its recent article on the subject: "Big established telecoms companies are under pressure as never before from new technology, aggressive regulators and entrepreneurial rivals. In response, they are trying to become even bigger, but also nimbler."[1] While large-scale enterprise is sometimes characterized as inherently monopolistic, such a view is fundamentally anti-consumer. From the consumer's perspective, what matters is the ability to buy high quality service at a low price. Supplier size matters only to the extent that it affects price and quality. While monopolization can raise prices and so lower consumer welfare, so too can rules that artificially limit economies of scale or scope.

A TEST OF THE MONOPOLIZATION THESIS

3) One valuable and relatively objective indicator of a merger's likely impact on market competition is provided by an examination of stock prices. In securities markets returns are realized by those investors who most accurately process information affecting corporate earnings, including the impact of important events such as mergers, in a timely fashion.[2] This allows an observer to discern the impact of various public announcements on future economic conditions by focusing on contemporaneous changes in share prices.

4) Such an approach is well suited to the policy consideration now undertaken by the FCC. The public interest determination is inherently forward looking. As the Commission has noted: "In evaluating the potential impact of the proposed merger on telecommunications markets... we will necessarily be making predictions of future market conditions and the likelihood of success of individual competitors."[3] The Commission goes on to cite the Supreme Court's ruling in *FCC v. RCA*: "In the nature of things, the possible benefits of competition do not lend themselves to detailed forecast..."[4] When the difficulty in crafting forecasts of future market conditions is combined with the key importance of such forecasts for public policy analysis, the advantage of using financial market data to make reasonable inferences about expected market effects becomes apparent. Stock prices, while sometimes volatile, offer the best reflection of the information observed by the public and knowledgeable investors. The

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1 "Telecoms: So the Elephants Danced," *The Economist* (August 1, 1998): www.economist.com/archive/b...s/1998_out/01:08:1998/ecn.009.html.

2 See G. Schwert, "Using Financial Data to Measure Effects of Regulation," *24 Journal of Law & Economics* (April 1981), 121-58; B. Eckbo, "Horizontal Mergers, Collusion, and Stockholder Wealth," *11 Journal of Financial Economics* (1983), 241-73.

3 *Nynex Corp. & Bell Atlantic Corp.*, Memorandum Opinion & Order, 12 FCC Rcd 19985 (1997).

4 *FCC v. RCA Communications Inc.*, 346 U.S. 86, 97 (1953).

fact that it would be easy for investors to reap above-competitive profits were prices set according to biased or systematically inaccurate forecasts of future corporate earnings constrains market prices to incorporate the most reliable information generally available.

5) Where a merger results in less competition between firms in a given industry, this prospect will increase profits anticipated by both the merging firms and their rivals – an effect which should be signaled by positive returns to shareholders at the time news of the merger hits the market. However, should the merger be anticipated to result in a more robust rivalry between firms in the industry (say, because of the creation of scale economies in the merged firm), then competitors of the merging firms will experience negative returns. By examining the stock market returns of the merger's competitors, we should thus be able to learn something important about the anticipated competitive effects of the merger.[5] In this analysis, I examine the abnormal market returns (subtracting the S&P 500 returns) for those firms which the FCC has identified as key Bell Atlantic competitors – Sprint, AT&T, and WorldCom – plus SBC, over 1-day and 3-day event windows surrounding the announcement of the Bell Atlantic-GTE merger on July 28, 1998.[6]

6) As seen in Table 1, the stock market reactions by the four major BA/GTE competitors to the July 28, 1998 merger announcement reveals little evidence that a decrease in competition was the likely result of the merger. All competitors exhibit negative unadjusted returns over all windows. When adjusted by the market returns over this period, all four firms again exhibit negative same-day returns, as well as negative returns for the three-day windows. This serves as strong evidence that rational investors do not believe that the Bell Atlantic merger with GTE will increase prices for telecommunications customers. The reverse interpretation – that the merger is seen as increasing competitive rivalry – is the most reasonable conclusion.

7) To gauge how other recent merger announcements have fared in a similar analysis, I have also examined returns for several major telecommunications competitors surrounding the mergers announced by AT&T/TCI (June 24, 1998) and by

[5] The stock price reactions of the merging firms may rise as per the merger, but the reasons are unclear: such could be caused either by expectations of higher product prices (monopolization) or due to anticipated efficiencies which will increase market share while lowering product prices (competition). Competitive (non-merging) firms in the industry may also realize positive returns due to the "in play" effect, an explanation which is an alternative to the monopoly thesis. Hence, positive returns exhibited by competitor stocks are necessary if insufficient evidence implying anti-competitive consequence for the merger.

[6] July 28 = Day 0. The 1 day window reveals returns for just Day 0; the 3 day window reveals returns for (-1 to +1). Regression results were also examined. Abnormal Returns for the j^{th} stock at time t (AR_{jt}) were estimated in the following market model:
$AR_{jt} = R_{jt} - (\alpha_j + \beta_j M_t)$, where the parameters α_j and β_j were estimated from daily stock market returns between September 9, 1997 and September 9, 1998, and M_t = S&P 500 returns for day t. These results were very similar to the method used here.

SBC/Ameritech (May 11, 1998). The AT&T/TCI announcement is associated with large negative returns for other major firms in the industry (see Table 2), particularly U.S. West (included because it is a potential competitor to TCI in many markets in the Western United States). These results are strongly supportive of the view expressed by many at the FCC and elsewhere that the merger would enhance competition,[7] and tend to support the conclusion that the similar pattern observed at the time of the Bell Atlantic-GTE merger announcement evidenced expectations of increasing competitive rivalry. The SBC/Ameritech merger announcement is greeted with more mixed results (see Table 3). Still, three of five major competitors experience negative returns for both the one-day and three-day windows.

EXPLAINING CONSOLIDATION EFFICIENCY

8) In the context of the current U.S. telecommunications market, nationally integrated firms are now emerging which promise to both utilize scale economies and to invigorate competitive forces. Both ends of the bargain – productive efficiencies and enhanced market rivalry – will reliably increase consumer welfare, delivering substantial benefits to the U.S. economy as a whole. One clear example of this is now occurring in wireless telephony. Since the licensing of cellular telephone service in 1984-89, hundreds of mergers and acquisitions have reduced the number of service providers. At the same time, the introduction of licenses for personal communications services (PCS) in the 1995-98 period has led (through aggregation allowed in the FCC auctions which assigned PCS licenses) to the entry of a relatively small number of large-scale national and regional operators. Industry consolidation has not been associated with increasing prices, or service reductions, for consumers. Quite the contrary: Efficient aggregation has produced economies which have fueled competitive rivalry. The result has been substantial reductions in the cost of mobile telephone usage and substantial increases in the quality of service.

9) The FCC's Third Annual CMRS Competition Report makes this point in the clearest terms.[8] It first notes that both within cellular markets, and with the advent of PCS entry

[7] "Will AT&T's acquisition of Tele-Communications, Inc. bring consumers better and cheaper telephone and cable service? Perhaps surprisingly, the answer is yes, say telecommunications consultants and analysts… The deal already received an implied blessing from William Kennard, chairman of the Federal Communications Commission." James Flanigan and Karen Kaplan, "AT&T Deal Could Have Nice Ring for Consumers," *The Seattle Times* (June 25, 1998), C1.

[8] In the Matter of: Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Radio Services, FCC 98-91 (Adopted May 14, 1998; Released June 11, 1998).

into the marketplace, service prices to customers have been markedly falling.[9] This market outcome, which the Commission ties explicitly to enhanced competitiveness, has occurred not only despite – but in large measure because of – industry consolidation. This is seen as a natural economic process delivering benefits to both producers and consumers. In the Commission's words:

> As many industries mature, a process of consolidation often occurs. This process can be observed in various CMRS services as licensees acquire new licenses to gain the efficiencies of larger footprints and the marketing possibilities of multiple product offerings. This process is most evident in the paging/messaging industry. Furthermore, it is possible that there will be a period of increased consolidation activity among broadband PCS licensees as competitive forces act upon the mobile telephone industry. At this point in time, consolidation appears to be part of the process of efficiently re-allocating resources and developing efficient and competitive markets because the consolidation has been largely across markets and not within markets. Consolidation has not significantly reduced the number of providers of a given service within a geographic market.[10]

10) In a closely related sector, some local telephone exchange providers are now seeking to combine forces *across* markets to better compete *within* markets. In the proposed merger between Bell Atlantic and GTE, two large regional operators seek to extend their scale of operations not by eliminating head-to-head rivalry but by combining operations which have essentially no current service territory overlap. The result of such a merger would be a substantially more efficient enterprise, one possessing the ability to tap into operating and marketing economies available to firms with national and international presence. The pro-competitive aspects of this merger can be inferred from:

a) trends in telecommunications markets, including the availability of economies of scale and scope;
b) synergies evident in the Bell Atlantic-GTE consolidation;
c) the presence of a strong set of Bell Atlantic-GTE competitors in the post-merger firms' quest for national telecommunications market share;
d) and by stock market reactions to the BA-GTE merger announcement which clearly signal pro-competitive expectations in the capital markets.

TRENDS IN THE TELECOMMUNICATIONS SECTOR

11) In the 1984 divestiture of AT&T, various line-of-business restrictions were placed upon the local exchange companies, which were themselves split off from the long distance and equipment manufacturing components of the old Ma Bell. This approach has

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[9] Ibid., at 3.
[10] Ibid., at 5 (footnote omitted).

likely achieved some successes and some failures; debate is still robust on the divestiture's ultimate place in history. But one certain aspect of the arrangement then imposed upon the telecommunications marketplace is that the separation of potentially complementary businesses was a direct cost of the policy. As the former assistant attorney general for antitrust, William Baxter, described it:

> The decree implicitly made a wager that the regulatory distortions of those portions of the economy, which could have been workably competitive, yielded social losses in excess of the magnitude of economies of scope that would be sacrificed by this approach. It was a wager, a guess. It would be absurd to pretend it was made on the basis of detailed econometric data. It was not; we did not have the data. Of course, all other courses from that point were also guesses. Clear proof was not about to become available any time soon. It was a judgment call, and I guess, in some senses, I do not yet know. Maybe we will never know whether it was right or wrong.[11]

It was seen that the presumed trade-off in favor of separation would not only be informed by market developments over time, but would likely shift as new forms of competition established themselves in the telecommunications sector.

12) One factor that has been made clearer in the fourteen years of market "experimentation" following divestiture is that nationally integrated firms exhibit certain productive efficiencies in providing telephone service to customers. This is now evident from the experience in wireless telephone markets, as noted by the FCC above, and in the case of long distance. Unlike the regulation-imposed partitioning in the local exchange market, long distance telephone firms are free to operate on a local, regional, or national basis. In fact, such firms routinely choose the size of the territory they wish to serve. Now with some 14 years of post-divestiture competition in long distance, we are able to observe the degree to which nationally integrated firms dominate the marketplace. The major long distance firms are all national in scope. The most successful firms in challenging the erstwhile AT&T monopoly for market share in long distance have been, and continue to be, nationally integrated competitors such as MCI/WorldCom and Sprint.[12] This survivorship test strongly indicates that firms serving national-sized markets (or larger) enjoy crucial productive advantages relative to other firms.

13) Apart from the scale advantages yielded by national integration, additional gains are being realized by firms offering expanded service menus. On the supply side, joint production of multiple services can exploit various economies of scope, utilizing a given set of common costs to produce additional output. Digitization is a technical phenomenon that is widely seen as contributing both to the convergence of

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[11] As quoted in: Gerald W. Brock, Telecommunications Policy for the Information Age (Cambridge, MA: Harvard University Press, 1994), at 172.

[12] The explosive performance of WorldCom in recent years also suggests that even firms which specialize in particular market segments – say, high volume business traffic – succeed by operating across a broad span of local markets (namely, nationwide).

telecommunications delivery modes and to large increases in scope economies. On the demand side, customer choice is enhanced when buyers are given an opportunity to select not only from an array of individual products, but from alternative packages of services. Such trends can be witnessed in a variety of retail and wholesale markets; "suites" increasingly dominate PC software applications, for instance, as individual word processing and spread sheet programs have given way to the increased functionality of multitask software packages. With the rapid pace of change in telecommunications markets, simple transactional efficiencies also yield powerful incentives to bundle products: consumers often prefer 'one-stop shopping,' particularly when uncertain about the delivery quality of new services. In such situations, the ability to deal with a trusted brand name supplier may most efficiently remedy the consumer's problem in obtaining reliable product information. Such trends have again been identified by the FCC in its evaluation of telecommunications markets. For instance, in the wireless sector it has explained:

> The convergence of product and service offerings continues to be a driving force in the wireless industry. Markets are defined by services, not legal or regulatory terms. One of the most easily recognizable results of this process is the increased use of "bundles" (i.e., multiple services from the same device) as a marketing tool.[13]

Economies of scale and scope naturally drive leading firms in the telecommunications sector to pursue both vertical integration and across-market consolidation strategies. This effort is, in many ways, a rationalization process, restructuring an industry partitioned along regulatory, rather than market, dictates. Rather than protecting monopoly turf, the consolidation of major service providers can facilitate entry and intensify competition, lowering prices for consumers. This is why leading analysts specifically see the consolidation of Bell Atlantic and GTE as a push for efficiency.[14]

MERGER SYNERGIES

14) Productive efficiencies from combining the operations of Bell Atlantic and GTE are likely to be substantial according to estimates by outside analysts as well as the companies themselves. According to Bear Stearns:

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[13] FCC, Third Annual CMRS Competition Report, op cit., at 4-5.

[14] As *The Economist* writes:

> The talk in the telecoms industry is of all these markets merging, with room for only four or five "universal players" – big integrated companies that offer all services. In that case, the Bells that stick to their old fiefdoms may be left behind. Hence, the view that they need to go on the offensive – and the possibility that the GTE/Bell Atlantic merger might just have been the final push needed to get all the Baby Bells up off their backsides. ("Telecoms," op cit.)

Cost savings come from combining telephone, wireless, publishing, long distance (LD), data and corporate activities. Efficiencies are gained in areas such as marketing (e.g., product management, sales, and advertising), customer operations, general and administrative (e.g., accounting, external relations, human resources, information technology, and legal), and corporate management and planning. Notably, both companies have experience in harvesting synergies. GTE successfully merged with Contel in the early 1990s, and Bell Atlantic is on plan in its combination with Nynex.[15]

15) Economies of scale are increasingly apparent in the developing global competition for telecommunications services. As new communications services penetrate consumer markets and as advanced information technologies spread deeper within various corporate structures, demand increases for reliability and functionality. Firms which deliver expanded, diverse packages of high quality services will naturally excel; conversely, firms which anticipate garnering large numbers of customers can better justify substantial outlays in research and development costs to create better networks for customers. While the forces favoring large scale enterprise are not ubiquitous, and entry by large numbers of small firms into various niches of the telecommunications industry continues in a parallel fashion, it is unmistakable that scale economies are an important source of efficiency in broad stretches of the sector. One oft-noted element of this market phenomenon is seen in the importance of brand name capital. Much of the competitive battle between network providers is today pitched at the level of creating a nationally recognized brand name that yields not only consumer awareness but conveys a reputation for quality products, ease of use, reasonable pricing, and system reliability. As the Bell Atlantic/GTE merger immediately endows the new enterprise with national scope, efficiencies derived from using national advertising to build and hold brand name acceptance become more readily available.

16) Product innovation can also be improved by integration of facilities in larger, more effective units. The positive relationship between size and dynamic efficiency rests on the elementary calculation that new product development entails certain fixed investments that are less risky where costs may be amortized across a larger number of sales. Such declining unit cost functions are likely to be of relatively greater importance in a network industry such as telecommunications. Achieving the 'critical mass' necessary for new product acceptance often depends in crucial part on the participation of a sufficient number of consumers interacting (i.e., communicating) on or via the new service in question. Allowing Bell Atlantic and GTE to combine yields transactional efficiencies in the introduction of new services, and additionally increases the incentives to innovate by holding out the prospect of more attractive returns due both to lower unit costs and the enhanced ability to quickly capture market share for popular new products.

[15] Bear Stearns, "Telecommunications Services: Opinions, News, & Latest Results" (August 1998), at 138.

17) The product innovation logic has both horizontal and vertical aspects. Some gains may be realized by a merger of Bell Atlantic and GTE by simply capturing economies of scale, particularly national or international (geographic) scope. But vertical efficiencies are also apparent, and these gains accrue to improved coordination between the various levels of service provision in the telecommunications sector. The two firms exhibit strengths in distinctly different product markets, and a combination of the two would likely improve both. As one analyst notes: "Moody's believes that the opportunity to cross sell GTE's growing portfolio of data products, the fastest growing telecommunications service offering, to Bell Atlantic's attractive customer base creates significant incremental earnings potential for the new enterprise."[16] Indeed, the combined enterprise will face strong incentives to invest in data services, including new internet backbone, because such services tend to be highly complementary to its core network services.[17]

18) Closely related to the above advantages of integration is product bundling, or "one-stop shopping." Bundling is a natural extension of communications services in an era in which increased functionality is demanded by customers. Moreover, it is a phenomenon driven for some years by technological convergence and the reduction of barriers to entry. Where firms with complementary service menus such as Bell Atlantic and GTE combine to produce a wider array of choices for customers, the resulting firm is likely to be a more formidable competitor -- particularly in the evolving "small numbers" competition seen in national and global telecommunications markets.

THE POST-MERGER TELECOMMUNICATIONS MARKET

19) The existing GTE and Bell Atlantic service areas do not exhibit any substantial overlap; direct competition is only a potentiality.[18] Yet, if consolidation allows the newly-formed company – through synergies and advantages discussed above – to better attack adjacent markets, then the resulting market will exhibit a greater degree of

[16] Dow Jones Newswires, "GTE/Bell Atlantic/Moody's" (July 28, 1998).

[17] "Managements Also See Opportunities for Vertical Integration. In particular, the new Bell Atlantic can leverage the GTE Internetworking unit (includes BBN Corp., which was acquired in 1997, and GTE's existing Internet services business), as well as GTE's nationwide LD network. Both of these assets are critical to penetrating medium and large businesses. Success in this market is a strategic imperative for Bell Atlantic." Bear Stearns, *Telecommunications Services...*, op cit., at 138.

[18] As one article notes: "[I]t's difficult to show a reduction in competition between companies that don't currently compete." John Simons, "Wave of Telecom Mergers Puts Regulators to the Test," *Wall Street Journal* (July 30, 1998), at B4.

competitiveness and, most importantly, lower prices and better products for customers. Telecommunications analysts appear to accept this view of the merger. Moody's notes:

> GTE's operations are key components in creating a telecommunications provider with the critical market presence and service offerings capabilities to compete in the rapidly consolidating telecommunications industry.[19]

20) As this analysis indicates, there is widespread expert belief that the ensuing marketplace -- featuring such well-positioned incumbents as Sprint, WorldCom/MCI, AT&T/TCI, and SBC/Ameritech -- will offer keen competitive resistance to the Bell Atlantic-GTE alliance. Conversely, the merger of Bell Atlantic and GTE enables the combined firm to itself go on the offensive, competing in new market segments against rival incumbents.

21) The simple analytics of industrial organization indicate that the biggest pro-competitive impact is typically registered with entry into a highly concentrated market. The basic proposition in financial economics, alternatively, is that benefits realized sooner are more valuable than those realized later. If the economies available to Bell Atlantic-GTE increase the probability that the post-merger company will successfully compete in providing competition in local and long distance telephone markets right now, this is clearly more valuable than holding back such competition to keep either firm "in reserve" for potential competitive entry at some later date. In attempting to create yet a new national product market in bundled local, long-distance and data communications service, the benefits attendant to a successful venture are potentially vast. Constraining such efforts on the speculation that future markets will be better served by the existence of one additional telephone company is to take an extremely risky gamble – with the consumers' chips.

CONCLUSION

22) When formulating its public interest determination in the proposed Bell Atlantic-GTE merger, the Commission will naturally attempt to identify the costs and benefits attendant to such a decision. In this mode, trade-offs may be more readily identified and weighed. On the cost side of the ledger are the consumer welfare losses associated with the elimination of head-to-head competition. Where a merger allows the remaining incumbent(s) to raise prices without the threat of entry, consumers may lose. In the extant case, there is virtually no service territory or product market where such an event

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[19] Dow Jones Newswires, "GTE/Bell Atlantic/Moody's" (July 28, 1998). See also: "Phone Mergers to Cut Rates: Analyst says telecom alliances will produce lower prices for consumers," CNNfn website (July 27, 1998; 1:51 p.m. ET): http://cnnfn.com/hotstories/deals/9807/27/wilkes_intv/index.htm.

could be identified. Even where Bell Atlantic and GTE service areas are adjacent, they typically do not directly overlap.

23) It is the issue of *potential* competition that raises questions for regulators. Were these two firms to merge, it would remove one of them as a potential entrant into the market of the other. But, of course, when one shifts from the realm of actual to potential competition, there are a great many more firms to consider as possible rivals in the service market territories of either Bell Atlantic or GTE. At a minimum, today's telecommunications market clearly features three strong, nationally-integrated long distance suppliers with designs on the one-stop shopping telecom market. Beyond AT&T/TCI, WorldCom/MCI, and Sprint, it now appears that the SBC/Ameritech alliance will provide national service. SBC has, indeed, announced plans to roll-out local/long distance offerings in all of the top 50 U.S. markets. Before even considering the competitive viability of cable telephony, internet service providers, online services, and wireless service suppliers (including cellular, PCS, fixed wireless access services, and satellite), the prospect of head-to-head competition between Bell Atlantic and GTE constitutes no better than the fifth most likely source of direct rivalry. It would involve an extreme degree of forecasting confidence to pinpoint the net benefit in deterring an efficient combination today so as to "hold back" a potential entrant running in the middle of a crowded race for possible competitive benefits sometime in the future.

24) Contrast such speculative gains against the very real and immediate benefits provided by the Bell Atlantic-GTE merger. Synergies are calculated to produce several billions of dollars in operating and financial cost savings, with marketing efficiencies delivering both better quality systems to customers and higher profits to stockholders. A key part of this combination involves tying GTE's sophisticated data/internet operations to the large retailing ability of Bell Atlantic, paving the way for an expansion of new telecommunications services, including packages of bundled products to customers searching for transactional efficiencies as well as greater functionality. This would allow the marketplace to restructure the scale and scope of telecommunications supply, replacing the imposed demarcations of an earlier era of regulation with efficiency-driven organization discovered via a process of competitive rivalry.

25) In this more dynamic environment, the post-merger firm would instantly enjoy the benefits of national scale, better to introduce and market telecommunications services to businesses and households. This competitive boost would directly threaten the market positions of other large, nationally-integrated telecommunications providers such as AT&T, SBC, Sprint and WorldCom – a fact that has not gone unnoticed either in the event study performed herein, or in the pages of *The Economist*: "[I]t is possible that real competition in local telephone markets is nearer than some have thought – one reason why so many telecoms stocks fell after the [Bell Atlantic-GTE] deal."[20] In light of the hard evidence that rational stock market investors do not anticipate an increase in market power, it is most reasonable to conclude that the merger of Bell Atlantic and GTE will lead to lower prices and enhanced services for consumers.

[20] "Telecoms," *The Economist*, op cit.

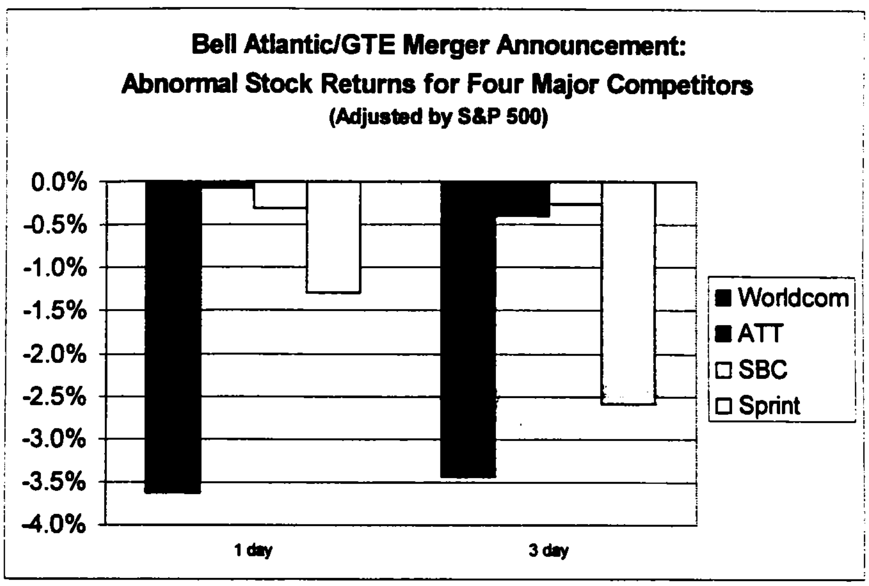
26) I, Thomas. W. Hazlett, do hereby declare that the forgoing is true and correct to the best of my knowledge and belief under penalty of perjury under the laws of the United States.

Thomas W. Hazlett

Table 1.
Bell Atlantic/GTE Merger Announcement:
Stock Returns for Four Major Competitors

	WorldCom	AT&T	SBC	Sprint	S&P 500
Window	Absolute Returns				
1 day	-5.1%	-1.6%	-1.8%	-2.8%	-1.5%
3 day	-4.8%	-1.8%	-1.6%	-3.9%	-1.4%
	Abnormal Returns (Adjusted by S&P 500)				
1 day	-3.6%	-0.1%	-0.3%	-1.3%	
3 day	-3.4%	-0.4%	-0.3%	-2.6%	

Announcement Date: July 28, 1998

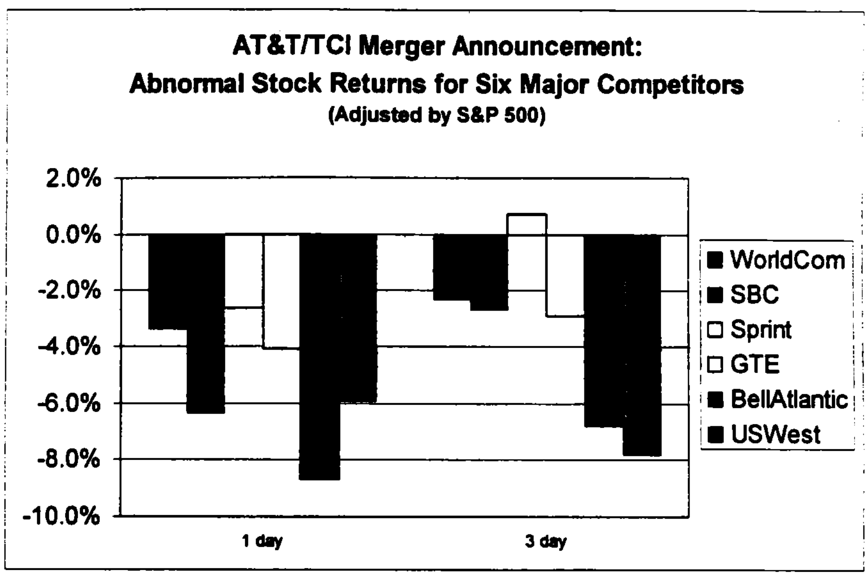


Announcement Date: July 28, 1998

Table 2.
AT&T/TCI Merger Announcement:
Stock Returns for Six Major Competitors

Window	WorldCom	SBC	Sprint	GTE	Bell Atlantic	US West	S&P 500
	Absolute Returns						
1 day	-0.7%	-3.6%	0.1%	-1.4%	-6.0%	-3.2%	2.7%
3 day	0.1%	-0.3%	3.1%	-0.6%	-4.4%	-5.4%	2.4%
	Abnormal Returns (Adjusted by S&P 500)						
1 day	-3.3%	-6.3%	-2.6%	-4.1%	-8.7%	-5.9%	
3 day	-2.3%	-2.7%	0.7%	-2.9%	-6.8%	-7.8%	

Announcement Date: June 24, 1998

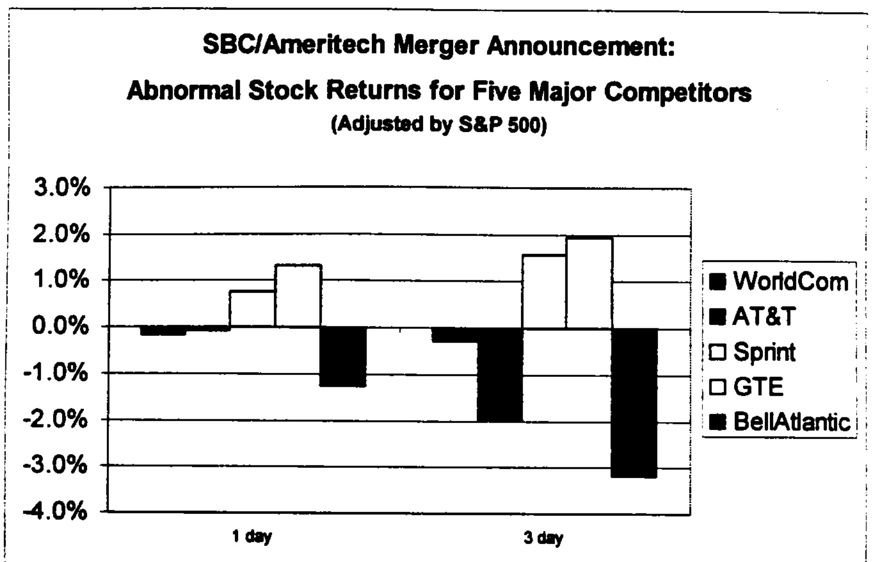


Announcement Date: June 24, 1998

Table 3.
SBC/Ameritech Merger Announcement:
Stock Returns for Five Major Competitors

Window	WorldCom	AT&T	Sprint	GTE	Bell Atlantic	S&P 500
	Absolute Returns					
1 day	-0.3%	-0.2%	0.6%	1.2%	-1.4%	-0.1%
3 day	1.6%	-0.1%	3.5%	3.8%	-1.3%	1.9%
	Abnormal Returns (Adjusted by S&P 500)					
1 day	-0.2%	-0.1%	0.8%	1.3%	-1.3%	
3 day	-0.3%	-2.0%	1.6%	1.9%	-3.2%	

Announcement Date: May 11, 1998



Announcement Date: May 11, 1998

APPENDIX 1

Thomas W. Hazlett: C.V.

October 1998

Thomas W. Hazlett
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1998-present – Resident Scholar, American Enterprise Institute
1996-present – Professor of Agricultural & Resource Economics, UC Davis
1993-present – Director, Program on Telecommunications Policy, UC Davis

Recently:

1992-1998 – Consultant-to-the-Firm, Econ One (formerly Micronomics)
1995-1996 – Visiting Scholar, American Enterprise Institute
1991-1992 – Chief Economist, Federal Communications Commission
1990-1991 – Visiting Scholar, Grad. School of Business, Columbia University
1990-1991 – Citicorp/Wriston Fellow, Manhattan Institute for Policy Research
1990-1996 – Associate Professor of Agricultural Economics, UC Davis
1984-1990 – Assistant Professor of Agricultural Economics, UC Davis

Degree: Ph.D., UCLA, 1984 (Economics)

Fields of Specialization:

Research: Applied Price Theory, Public Choice, Telecommunications Policy
Teaching: Microeconomics, Corporate Finance, Regulation, Law & Economics
Received "Outstanding Lecturer Award," U.C. Davis Dept. of ARE (1997-98)

Related Experience:

Lecturer in Economics, California State University, Fullerton, 1980-84
Senior Editor, *Manhattan Report on Economic Policy*, 1981-1986
Contributing Editor, *Harper's Magazine*, 1984
Contributing Editor, *Reason Magazine*, 1984-present
Commentator, "Byline," syndicated to 200 radio stations by the Associated Press, 1985-89
Economics Commentator on "Marketplace," National Public Radio, 1989-1990
Contributing Correspondent to *The Economist* (of London), 1988-1991
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Current Affiliations:
Applied Public Policy Research Group, Institute of Governmental Affairs (UC Davis)
Member, Giannini Foundation (UC Berkeley)
Academic Advisory Board, Institute for Justice (Washington, D.C.)
Academic Advisory Board, Consumer Alert (Washington, D.C.)
Member, Mont Pelerin Society
Senior Research Fellow, Columbia Institute for Tele-Information (Columbia University)
Adjunct Scholar, Cato Institute (Washington, D.C.)
Senior Fellow, Liberal Institute (Prague, Czech Republic)
Member, American Economics Association, American Law & Economics Association, Southern Economics Association

Books:

Public Policy Toward Cable Television, Volume I: The Economics of Rate Controls, co-authored with Matthew Spitzer, (Cambridge, MA: M.I.T. Press, November 1997).

Public Policy Toward Cable Television, Volume II: Regulation and the First Amendment, co-authored with Matthew Spitzer (work in progress).

The Political Economy of Radio Spectrum Allocation (work in progress).

Research Articles:

"Competition vs. Franchise Monopoly in Cable Television," in *Contemporary Policy Issues IV* (April 1986), 80-97.

"Public Policy and the Telecommunications Revolution," *Contemporary Policy Issues IV* (April 1986), 52-53.

"Is Antitrust Anticompetitive?" *Harvard Journal of Law and Public Policy IX* (Spring 1986), 277-336.

"Private Monopoly and the Public Interest: An Economic Analysis of the Cable Television Franchise," *University of Pennsylvania Law Review 134* (July 1986), 1335-1409.

"The Role of Property Rights in the Positive Theory of Monopoly," *Managerial and Decision Economics 8* (September 1987), 201-212.

"The Policy of Exclusive Franchising in Cable Television,"*Journal of Broadcasting and Electronic Media 31* (Winter 1987), 1-20.

"Economic Origins of Apartheid," *Contemporary Policy Issues VI* (October 1988), 85-104.

"The Fairness Doctrine and the First Amendment," *The Public Interest 96* (Summer 1989), 103-116.

"Duopolistic Competition in CATV: Implications for Public Policy," *Yale Journal on Regulation VII*, No. 1 (Winter 1990), 65-119.

"A Reply to Regulation and Competition in Cable Television," *Yale Journal on Regulation, VII*, No. 1 (Winter 1990), 141-48.

"The Rationality of U.S. Regulation of the Broadcast Spectrum," *Journal of Law & Economics, XXXIII* (April 1990), 133-175.

"Rent-Seeking in the Telco/Cable Cross-Ownership Controversy," *Telecommunications Policy 14* (October 1990), 425-433.

"The Demand to Regulate Franchise Monopoly: Evidence from CATV Rate Deregulation in California," *Economic Inquiry XXIX* (April 1991), 275-296.

"The Political and Economic Motivation for Antitrust Legislation: The Sherman Act Re-examined," *Economic Inquiry XXX* (April 1992), 263-276.

"The Cost of Rent Seeking: Evidence from the Cellular Telephone License Lotteries" (with Robert J. Michaels), *Southern Economic Journal* (January 1993), 425-35.

"Telco Entry Into Video," *Annual Review of Communications 1994-95,* International Engineering Consortium (1995), 212-28.

"Predation in Local Cable Television Markets," *Antitrust Bulletin XL* (Fall 1995), 609-44.

"Cable Television Rate Deregulation," *International Journal of the Economics of Business 3* (No. 2, 1996), 145-63.

"Explaining the Telecommunications Act of 1996: Comment on Thomas G. Krattenmaker," *29 Connecticut Law Review* (Fall 1996), 217-42.

"Was the Fairness Doctrine a 'Chilling Effect'? Evidence from the Post-Deregulation Radio Market" (with David Sosa) *Journal of Legal Studies XXVI* (January 1997), 307-29.

"'Chilling' the Internet? Lessons from FCC Regulation of Radio Broadcasting" (with David Sosa), *3 Michigan Telecommunications and Technology Law Review* (1997), available online at: http://www.law.umich.edu/mttlr/.

"Physical Scarcity, Rent-Seeking and the First Amendment," *Columbia Law Review 97* (May 1997), 905-44.

"Prices and Outputs Under Cable TV Reregulation," *Journal of Regulatory Economics 12* (September 1997), 173-95.

"The Dual Role of Property Rights in Protecting Broadcast Speech," *Social Philosophy & Policy 15* (Summer 1998), 176-208.

"*Oak Leaves* and the Origins of the 1927 Radio Act: Comment" *Public Choice 95* (June 1998), 277-85.

"Occupational Licensing and the Transition from Welfare to Work" (with Jennifer Fearing) *Journal of Labor Research* (forthcoming, 1998).

"Competition Between Government Agencies: OMB Forecasts Before and After CBO" (with Lorraine Egan), *Journal of Economic Behavior and Organization* (forthcoming, 1998).

"Spectrum Flash Dance: Eli Noam's Proposal for 'Open Access' to Radio Waves," the *Journal of Law & Economics* (forthcoming, October 1996).

"Assigning Property Rights to Radio Spectrum: Why Did FCC License Auctions Take 67 Years?" *Journal of Law & Economics* (forthcoming, October 1998).

Book Chapters & Other Essays:

"The Curious Evolution of Natural Monopoly Theory," in Robert Poole, Jr., (ed.), Unnatural Monopolies: The Case for Deregulating Public Utilities (Lexington, MA: Lexington Books, 1985).

"Private Contracting vs. Public Regulation as a Solution to the Natural Monopoly Problem," in Robert Poole, Jr., (ed.), Unnatural Monopolies: The Case for Deregulating Public Utilities (Lexington, MA: Lexington Books, 1985).

"The Economics of Discrimination in Rent Controlled Housing Markets," in Issues in Housing Discrimination (Washington, D.C.: United States Commission of Civil Rights, 1985).

"Razing Keynes," Chapter One in Morgan O. Reynolds, ed., W. H. Hutt: An Economist for the Long Run (Chicago: Henry Regnery, 1986).

"Wiring the Constitution for Cable," *Regulation 12* (Number 1, 1988), 30-34; summarized as "Unwiring Cable" in *The Wilson Quarterly XII* (Winter 1988), 26-27.

"Cabling America: Economic Forces in a Political World," in Cento Veljanovski, ed., Freedom in Broadcasting (London: Institute of Economic Affairs; 1989), 208-223.

"Taxing Entrepreneurs: Models and Reality," in Bös and Felderer, eds., The Political Economy of Progressive Taxation (Berlin-Heidelberg: Springer, 1989), 145-147.

"Competition Policy in Cable Television," *Regulatory Reform III* (Industry Regulation Committee of the ABA Section of Antitrust Law; May 1990), 7-15.

"Should Telephone Companies Provide Cable TV?," *Regulation 13* (Winter 1990), 72-80.

"CATV: The Impact of Deregulation and the Emerging Technology." In Martin Elton, ed., Integrated Broadband Networks (Amsterdam: Elsevier; May 1991), 247-263.
"Telecommunications: Starting the Next Century Early," in David Boaz and Edward H. Crane (eds.), Market Liberalism: A Paradigm for the 21st Century (Washington, DC: Cato Institute, 1993), 129-146.

"Cable Re-regulation: What You Didn't See on C-SPAN," *Regulation* (Spring 1993).

"The Political Economy of Apartheid," in D. R. Henderson, ed., Fortune Encyclopedia of Economics (August 1993), 97-104.

"Rate Regulation and the Quality of Cable Television," chapter in William Lehr, ed., Quality and Reliability in Telecommunications Infrastructure (1995).

"What To Do About Telecoms," *Jobs & Capital* (Fall 1995), 33-38.

"Federal Pre-emption of Local Regulation of Cable Television," Chapter 23 in James Hickey, Jr. and Alexej Ugrinsky, eds., Government Structures in the USA and the Sovereign States of the Former USSR (1996), 247-55.

"Bottom-Up Privatization: The Czech Experience," Chapter 7 in Terry Anderson and P.J. Hill, eds., The Privatization Process: A Worldwide Perspective (1996), 97-114.

"Market Failure in Broadcast Regulation," Ch. 6 in R. Corn-Revere, ed., Rationales and Rationalizations (Washington, D.C.: The Media Institute; 1997), 151-182.

"Is the 'Public Interest' in the Public Interest?," in Donald L. Alexander, ed., Telecommunications Policy: Have Regulators Dialed the Wrong Number? (1997), 49-74.

Articles Submitted or In-Progress:

"Sham Regulation As An Equilibrium Political Solution in FCC Broadcast Licensing," work-in-progress (June 1996).

"The Fallacy of Regulatory Symmetry: An Economic Analysis of the 'Level Playing Field' in Cable TV Franchising Statutes" (with George Ford), submitted to the *Journal of Economic Management & Strategy* (May 1996), under revision for resubmission.

"The Effect of Rate Regulation on Mean Returns and Nondiversifiable Risk: The Case of Cable Television," with Arthur Havenner, being revised for resubmission to the *Rand Journal of Economics*, July 1998).

"Liberalizing Radio Spectrum Policy" (October 1997).

"DOS Kapital: Has Antitrust Action Against Microsoft Created Value in the Computer Industry?" with George Bittlingmayer, paper presented at the American Economic Association annual meetings, Chicago, Illinois (January 1998); being revised for resubmission to the *Journal of Financial Economics* (August 1998).

Special Teaching Assignments/Lectures:

"The Economic Way of Thinking," Foundation for Teaching Economics, Prague, Czechoslovakia (September 1991).

"The Economic Way of Thinking," Foundation for Teaching Economics, Prague, Czechoslovakia (August 1992).

"The Economic Way of Thinking," Foundation for Teaching Economics, Budapest, Hungary (September 1992).

"Economic Challenges for the Next Four Years," A Conference for Journalists presented by the Foundation for American Communications, Los Angeles, California (January 1993).

Ministry of Post & Telecommunications Institute, lecture program arranged by Columbia Institute on Tele-Information, Tokyo, Japan (March 1993).

"Nafta, Gatt and Other Four-Letter Words," An economics conference for journalists presented by the Foundation for American Communications, San Diego, California (December 1993).

Institute on Economics for Journalists presented by the Foundation for American Communication, funded by Ford Foundation, Tomales Bay, California (July 1994).

Ministry of Post & Telecommunications Institute, (program arranged by Columbia Institute on Tele-Information), Tokyo, Japan (December 1994).

"The New Congress and the Economy," An economics conference for journalists presented by the Foundation for American Communication, University of Georgia (May 1995).

Institute on Economics for Journalists presented by the Foundation for American Communications, Tomales Bay, California (July 1995).

Center for Market Processes, Congressional Staff Briefing on the economics of regulation, Williamsburg, Virginia (August 1995).

"Spectrum Management," Columbia University's Third Annual International Training Conference for Telecommunications Regulators, New York, New York (November 1995).

"Economics and the '96 Elections," Economics Conference for Journalists presented by the Foundation for American Communications, Greenbrier, West Virginia (April 1996).

Institute on Economics for Journalists presented by the Foundation for American Communications, Jackson Hole, Wyoming, (August 1996).

"Economics for Leaders," Lectures to High School Economics Teachers, Foundation for Teaching Economics, Babson College, Wellesley, Massachusetts (July 1997).

Institute on Economics for Journalists presented by the Foundation for American Communications, Tomales Bay, California (August 1997).

The Stranahan Lecture, University of Toledo School of Law (October 1997)

Distinguished Pantaleon/Concepcion Chair, Universidad Francisco Marroquin, Guatemala (October 1997).

Monographs:

"Cable Television and the First Amendment: Bartering with the Public Interest," (Washington,D.C.: The Media Institute, 1987).

"Residential Community Associations as Alternative Providers of Public Services," (Berkeley: California Policy Seminar, July 1988).

"Perspectives of Regulators," in Regulating Chemicals: The Quandary in Public Policy, Report of the Public Policy and Regulations Study Group for the 1987-88 Study on "Chemicals in the Human Food Chain: Sources, Options and Public Policy," University of California Agricultural Issues Center (1988), pp. 28-33.

"Cable vs. Telcos: Technology Shaping Emerging Policy Options," Cable TV and News Media Law & Finance, VII (no. 3; May 1989), pp. 1, 5.

"The Political Economy of Rent Control in California," Reason Foundation monograph (November 1991).

"The Effect of U.S. Sanctions on South African Apartheid." Institute of Governmental Affairs, UC Davis (April 1992).

"The Political Economy of Radio Spectrum Auctions," Working Paper No.1, Program on Telecommunications Policy, Institute of Governmental Affairs, UC Davis, June 1993.

"Market Power in the Cellular Telephone Duopoly," study submitted to the Federal Communications Commission by the Time Warner Telecommunications, August 1993.

"Errors in the Haring-Jackson Analysis of Cellular Rents," report submitted to the Federal Communications Commission by the National Cellular Resellers Association, January 1994.

"Regulating Cable Television Rates: An Economic Analysis," Working Paper No.3, Program on Telecommunications Policy, Institute of Governmental Affairs, U.C. Davis, July 1994.

"Regulating the Digital Explosion," Briefing Paper for Journalists in *Quill Magazine* (April 1995).

"'Chilling' the Internet? Lessons from FCC Regulation of Radio Broadcasting," with David Sosa, *Cato Institute Policy Analysis No. 270* (19 March, 1997).

Refereed or Reviewed Manuscripts for:

Journal of Industrial Economics, Economic Inquiry, Journal of Law & Economics, Contemporary Economic Policy, California Agriculture, Journal of Economics & Management Strategy, Journal of Law, Economics & Organization, Journal of Broadcasting & Electronic Media, Journal of Economic History, Journal of Regulatory Economics, Business History Review, Managerial and Decision Economics, Southern Economic Journal, Manhattan Institute for Policy Research, Smith-Richardson Foundation, Harcourt-Brace, M.I.T. Press, Federal Trade Commission, Congressional Budget Office.

Consulting (formal and informal):

Telus, Pacific West Cable Company, Preferred Communications, Century Cable, Group W, Telesat Cablevision, Norwest Communications, Total TV, Montgomery Cable and Entertainment, Ohio Bell, Wireless Cable Association, Competitive Cable Association, U.S. Telephone Association, AT&T Wireless, Western Wireless, NewsCorp, FoxTel, Cablevision Systems, CBS, Pacific Telesis, U.S. West, Bell Atlantic, Bell South, Ameritech, Southwest Bell, Nynex, Time Warner Telecommunications, Coastal Cable, Southern New England Telephone, McClatchy Enterprises, Viacom, Tandem Computers, Guatel, White House Office of Policy, White House Council of Economic Advisers, U.S. Department of Justice, Federal Trade Commission, Federal Communications Commission, the National Telecommunications and Information Administration, Republic of El Salvador, Congressional Budget Office, County of Santa Cruz, the California Department of Justice, California Governor's Office, Progress & Freedom Foundation, Alliance for Public Technology, Common Cause, the California Board of Equalization, the U.S. House Commerce Committee staff, and the U.S. Senate Commerce Committee staff.

Oral Testimony:

Before the Joint Economic Committee of Congress on the subject of urban enterprise zones, October1981.

Before the California Public Broadcasting Commission on the subject of cable television deregulation, February 1982.

Before the Compton, California City Council, on the subject of enterprise zones, October 1982.
Before the Pacific Grove, California City Council, on the subject of local land-use regulations, February 1984.

Before the Federal Competition Board, Republic of South Africa, on the subject of monopoly and industrial concentration, June 1985.

Before the U.S. Commission on Civil Rights, on the subject of housing market discrimination, November 1985.

Before the Santa Cruz, California City Council, on the subject of municipal franchising of cable television, November 1985.

Before the U.S. District Court for Northern California, in Pacific West v. Sacramento, regarding franchise monopoly in cable television, April/May 1987.

Before the U.S. District Court for Minnesota, in Norwest Communications v. St. Paul, regarding franchise monopoly in cable television, May/June 1988.

Before the Florida State House of Representatives on cable television franchising legislation, March 1991.

Before the U.S. District Court for Northern California, in Pacific West v. Sacramento Cable Television, on predatory behavior in cable competition, April 1991.

Before the Advisory Council on the National Information Infrastructure, U.S. Department of Commerce, Washington D.C., February 1994.

Before the California Superior Court, Sacramento County, in Coleman et al. v. Sacramento Cable Television, regarding price discrimination and cable competition, March, May 1994.

Before the U.S. Senate, Committee on Commerce, Science and Transportation, regarding the use of auctions for High Definition Television licenses, September 1995.

Before the Federal Communications Commission, En Banc hearing on Spectrum Allocation, March 1996.

Before the U.S. Senate Budget Committee, regarding auctioning digital television licenses, March 1996.

Before the U.S. Senate, Committee on Commerce, Science and Transportation, regarding spectrum regulatory policy, March 1996.

Before members of the Guatemalan Congress, regarding telecommunications policy reform legislation, September 1996.

Before Federal Bankruptcy Court (Dallas, Texas) regarding the Personal Communications Service license auctions conducted by the Federal Communications Commission (April 1998).

Book Reviews and Op-Eds:

Review of Paul Craig Roberts' The Supply-Side Revolution in *The American Spectator* (August 1984).

"Slinky Plan for Sticky Wages," review of Martin Weitzman's The Share Economy in the *Wall Street Journal* (20 May, 1985).

"Animal Rights, Animal Crackers," *Wall Street Journal* (7 August, 1985).

"Why Cable TV Needs a Free Market," *New York Times* (17 November, 1985).

"Lose a Billion--Get a Check," review of Robert Reich and John Donahue, New Deals: The Chrysler Revival and the American System in *Reason Magazine* (December 1985).

"Those Catchwords of Cable," *Wall Street Journal* (25 April, 1986).

"Kinnock's Crowning Cheek on Apartheid," *Wall Street Journal* (31 December, 1986).

"Economic Sanctions May Actually Help South Africa's Apartheid," *Chicago Tribune* (26February, 1987).

"Sanctions: Hurting South Africa, Helping Apartheid," *San Francisco Chronicle* (4 March, 1987).

"Ma Bell's Disconnect," review of Steve Coll's, The Deal of the Century: The Break-Up of AT&T in *Reason Magazine* (May 1987), pp. 51-54.

"The Unfairness Doctrine," review of Lucas A. Powe, Jr.'s American Broadcasting and the First Amendment, *Wall Street Journal* (June 4, 1987).

"The Fairness Doctrine was Never Quite Fair," *Los Angeles Times* (4 October, 1987).

"Making Money Out of the Air," *New York Times* (2 December, 1987).

"Ingredients of a Food Phobia," *Wall Street Journal* (5 August, 1988).

"Negative Icons Nose to Nose on 'Geraldo,'" *Wall Street Journal* (8 November, 1988).

"Economist! Drama! Prose!," review of George J. Stigler's Memoirs of an Unregulated Economist, *Reason Magazine* (May 1989), pp. 53-55.

"Wired: The Loaded Politics of Cable TV," *The New Republic*, 200, No. 22 (May 29, 1989), pp. 11-13.

"Raiders of the Lost Park," *Wall Street Journal* (14 September, 1989).

"Bushels of Dough," review of James Bovard's The Farm Fiasco, *Wall Street Journal* (21September,1989).

"The Unbelievable LBJ," review of Robert A. Caro's Means of Ascent, *Wall Street Journal* (8March,1990).

"Who's Behind the Cable Scam?," *Wall Street Journal* (30 March, 1990).

"Dial 'G' for Giveaway," *Barron's* (4 June, 1990).

"For Cable TV, Rerun of a Horrow Show," *New York Times* (8 August, 1990).

"Static Interference," review of William B. Ray's FCC: The Ups and Downs of Radio-TV Regulation, *Reason* (February, 1990), pp. 55-57.

"One Man, One Share: How to Privatize South Africa," *The New Republic* (31 December, 1990), pp.14-15.

"Did Sanctions Matter?" *New York Times* (22 July 1991).

"In Cable War, Consumers Get Snagged," *Wall Street Journal* (2 October 1992).

"The Forgotten Continent," review of George B. N. Ayitteh's, Africa Betrayed, *Wall Street Journal* (17March 1993).

"Why Your Cable Bill Is So High," *Wall Street Journal* (24 September, 1993).

"How Home Shopping Became King of Cable," *Wall Street Journal* (14 July, 1994).

"Strike Out: Economic Logic Loses in Baseball Strike," *Chicago Tribune* (16 September, 1994).

"Spectrum Auctions -- Only a First Step," *Wall Street Journal* (20 December, 1994).

"Station Brakes: The Government's Campaign Against Cable Television," *Reason* (February 1995), pp. 41-47.

"How Washington 'Saved' Us From Cable," *Wall Street Journal* (23 March, 1995), p. A14.

"The Czech Miracle: Why Privatization Went Right in the Czech Republic," *Reason* (April 1995), pp. 28-35.

"Cable Controls: Lower Rates, Lower Quality," *Wall Street Journal* (14 July, 1995), p. A12.

"Free the Airwaves," *The American Enterprise* (March/April, 1996), pp. 71-2.

"The 'Public Interest' Fraud," *Wall Street Journal* (6 May, 1996), op-ed page.

"Industrial Policy for Couch Potatoes," *Wall Street Journal* (7 August, 1996), A-14.

Review of Thomas Streeter's Selling the Air, *Journal of Economic Literature XXXV* (September 1997), 1411-12.

"Velvet Devolution: What's Really Happening in the Czech Republic," *Reason* (March 1998).

"As Microsoft Goes, So Goes the Computer Industry," with George Bittlingmayer, *Wall Street Journal* (26 May, 1998), A14.

Other General Circulation Articles, Columns, Reviews and Interviews have appeared in such publications as the *New York Times*, *Wall Street Journal*, *Chicago Tribune*, *USA Today*, *International Herald-Tribune*, *San Francisco Chronicle*, *Detroit News*, *Sacramento Bee*, *Oakland Tribune*, *Orange County Register*, *Reader's Digest*, *Reason*, *National Review*, *Inquiry*, *Policy Report*, *Across-The-Board*, *Policy Review*, *Chief Executive*, *UC Davis Magazine*, *Los Angeles Daily News*, *Los Angeles Times*, *Newsday*, and *The Economist (of London)*.