Good afternoon, Mr. Chairman and Members of the Subcommittee.

Thank you for inviting me to testify this afternoon on the health of the telecommunications industry despite the fact that I am neither an investor nor an economist. Rather, I am a telecom lawyer and the Director of Policy Research at the Columbia Institute for Tele-Information (CITI) at the Columbia Business School in New York.

I should note, however, that I am appearing today in my personal capacity rather than as a representative of CITI and that I am personally bearing all the expenses associated with this testimony.

My personal involvement in the development of local competition since 1985 shapes my view of the health of the sector and the impact of regulation on that health, so let me briefly review that experience to provide you with a context for my comments.

Beginning in 1985, I was responsible for the regulatory and public policy matters at the Teleport Communications Group (TCG), which was the first and certainly,
by current standards, the most successful CLEC. That put me personally right in
the middle of the development of the state and federal local competition policies
that laid the foundation for the Telecom Act of 1996.

TCG was very much a “facilities-based” CLEC, deploying our own fiber optic
networks and local switches in over 30 markets across the company. We wanted
to control our own destiny for two reasons: first, we didn’t expect our incumbent
competitors to help us; and, second, we wanted to differentiate our services on
non-price factors so that we wouldn’t have to compete solely on the basis of
price. I learned that it takes a long, long time to develop a viable CLEC business:
there is no quick solution, just lots of blocking and tackling.

TCG was a private company for its first ten years. Because private investors
tend to be stingy with their capital, TCG had to be prudent, conservative and
grow carefully. But private capital is also patient, which allowed TCG to pursue a
longer term strategic vision rather than responding to the whims of public equity
markets. Based on this experience, I was quite surprised to see that start-up
CLECs were immediately “going public” in the late 90s to cash in on valuations
based on “comparables” with mature “incumbent CLECs” such as TCG and MFS.
It was the case of the irrational business plan meeting the irrational investor.

But after ten years of conservative, steady development and sound financial
performance under the discipline of private capital, TCG was ready to “go public”
in mid-1996, shortly after the passage of the Telecom Act of 1996. The IPO
“road show” and subsequent dealings with the investors and analysts gave me
the opportunity to see “up close” how the Telecom Act affected institutional
investors’ willingness to invest in the CLEC sector.

In the typical “roadshow” presentation, our Chairman and CFO gave a
presentation on the company’s background, strategy and solid financial
performance. Then the prospective investor, instead of focusing on the
fundamentals, would often turn to me and say “what’s up with this Telecom Act?” A frequent investor concern was whether the Act would make it “too easy” for new entrants to get into the space being occupied by established CLECs such as TCG and MFS and whether unbundling would undercut the value of our existing investments. I couldn’t answer those questions because the roadshow was conducted before the FCC’s Local Competition Order of August of 1996 although the answer turned out to be “yes. But after that Order was released, TCG’s stock struggled for a time.

The last chapter of the TCG story was its acquisition by AT&T in mid-1998, for about $12 billion in AT&T stock. The acquisition of TCG represented a quick way for AT&T to develop local networks capable of serving its large business customers, but it could do little for AT&T’s “mass market” consumer and small business customers.

Fortunately for me, I was recruited to the FCC in late 1998 to be a Deputy Chief of the Common Carrier Bureau and, in order to comply with conflict-of-interest laws, was required to sell all of my telecom-related investments at what turned out to be near the peak of the bubble. As they say, it is better to be lucky than smart.

I developed the greatest respect and sympathy for the FCC during my 18 months at the agency. The Commission was (and still is) attempting to implement an ambiguous statute – the Telecom Act of 1996 -- while dealing with an industry that was (and still is) changing more quickly than regulatory due process and agency workload can possibly accommodate. One problem I saw was that little or no experimental evidence was available for the Commission to evaluate – just endless speculation, hypothesis and rhetoric.

I should also note that, during the very good times of the telecom “boom,” there seemed to be little concern among parties petitioning the FCC about the
fundamental health of the telecom industry or whether any FCC decisions might have a fundamentally adverse impact on the industry’s health in the future.

To complete my personal context, I commuted to the FCC from my home in New Jersey for 18 months -- until mid-2000 -- when Eli Noam, the founder of CITI, offered me the much shorter commute to Columbia in New York. And I should add that I am the current Chairman of the North American Numbering Council (NANC), the FCC advisory committee concerned with managing the telephone numbering system.

So, what about the health of the telecom sector? And what is the impact of current telecommunications regulation on the financial health of telecommunications companies?

Briefly, the overall health of the industry is poor, but slowly improving. Clearly, some elements are in critical condition and may not recover at all and it is too soon to predict when or if there will be a full recovery for many.

It is also too soon to know precisely how much regulation has contributed to the ill health, although I’m sure that it was a contributing factor. It is worthwhile to note that the telecom “meltdown” was a simultaneous, world-wide event and that each country has different laws and regulations and different degrees of regulation. So, the simultaneous nature of the meltdown might be just a coincidence, and it might be possible that the U.S. meltdown could be largely attributable to the peculiarities of U.S. regulation. However, it is more likely that regulation played a relatively minor role and that other common factors-- such as the laws of physics and the laws of human nature, which are the same in all countries -- are responsible.

CITI is in the midst of answering your questions. With a grant from the Alfred P. Sloan Foundation and supporting grants from a cross-section of the telecom
industry, CITI has embarked on a year-long project entitled “Remedies for Telecom Recovery”.

With the aid of advisory committees composed of experienced experts from academia, industry, government, unions and consumer organizations, we will be identifying the root causes of the telecom “meltdown” and developing practical and workable managerial, financial and public policy remedies. We expect to release a final report on our findings and recommendations in early October and we hope that our work will help this Subcommittee and other policy makers as well as telecom managers and investors.

While our research and recommendations are far from complete, I believe that my CITI colleague, Prof. Eli Noam, has put his finger on the reason for the poor health of the telecom sector. He has summed it up simply in just two words: fundamental volatility.

As Prof. Noam has pointed out, while business cycles are not new to many industries, in telecom they are a new phenomenon. Until recently, the network industry progressed in only one direction: up. Telecom used to be less volatile than the economy as a whole. It grew steadily, with long planning horizons hardly ruffled by the normal business cycle. But today, in sharp contrast, the fragmented telecom sector may well have become much more volatile than the overall economy: more like the office construction business, less like water utilities. And the reason for this is the basic cost characteristics of telecom industry have evolved to be more like office construction and less like water.

Fortunately, the present downturn appears to be ending: there are signs that the industry has “bottomed” and that the survivors will begin to grow, albeit slowly and cautiously.
So, the real challenge for the industry is what happens next? If the sector is just working through the consequences of a one-time boom and bust, then there really isn’t much that anyone should do: we’ll be back to the “good ‘ol days” of steady growth and good health soon enough.

But if Prof. Noam is correct, the telecom industry has entered a pattern of chronic volatility where boom-bust cycles will become the norm rather than an aberration.

As we discovered over the past 2-3 years, telecom managers, investors and regulators have few tools and little or no experience to deal with the uncertainties of a volatile boom and bust. “Deer in the headlights” is an apt description of how industry, government and investors responded.

If telecom has become a chronically volatile business, we need to do better than be a herd of deer: *all* the corporate strategies and cultures, *all* the investor expectations and *all* the laws and regulations that were premised on certainty and predictable growth will have to be changed, perhaps radically … and soon. This may require wrenching changes in processes, policies and people.

Of course, we don’t have much experience with volatility and uncertainty in telecom to make long-term predictions. And it is true that we are learning from the recent past.

As a first step, we can and probably should try to minimize some of the volatility. For example, Prof. Noam has suggested that price cap formulas could be modified to provide for automatic price inflators that are triggered during a downturn, as a counter-cyclical measure. At the same time, wholesale prices would be lowered, also automatically, to distribute the additional revenues throughout the sector and to establish a safeguard against unfair retail prices.
But if we fail to identify and then tame all the drivers of telecom volatility—which is not likely in such a complex business—we must expect considerable uncertainty to be with us into the foreseeable future and we must be prepared to quickly develop and adopt different management strategies, investor expectations, and laws and policies.

There are many causes for the boom and bust. CITI’s “Remedies for Telecom Recovery” project will attempt to catalog them and I’m sure that, in addition to volatility, the list will include the separate dot.com bubble, technological advances that increased capacity too quickly, flawed business plans, and fraud. I believe that the Telecommunications Act of 1996 contributed to the new volatility of the telecommunications sector and is therefore a contributing cause of the sector’s current poor health.

Specifically, the Telecom Act amplified both the boom and the bust. It is likely that the new law contributed to the telecom “boom” by encouraging investors to believe that there would be less risk and more reward from investing in the sector. (But it is important to note that euphoria affected totally unregulated sectors, so the connection between the boom and the Telecom Act may not be as direct as some think.)

The Act contributed to the “bust” in two ways. First, it inhibited the experimentation that can reduce risk in the first place and can makes cures faster and more effective. Simultaneously, the Act created a legal and policy “gridlock” that spooked investors and prevented regulators from responding more effectively to the downturn.

For all its well-meaning intentions about loosening the grip of government, the Telecommunications Act ended up centralizing all fundamental telecommunications policy in the Federal Communications Commission (FCC), effectively federalizing the 50 states with respect to local competition and
preempting the judicially-supervised modified final judgment (MFJ) with respect to Bell entry into long distance. This centralization appeared to satisfy investors’ desire for less risk and more reward by providing what turned out to be the illusion of greater “certainty” and “predictability”. This change in investor sentiment made more capital available at less cost and that helped to fuel the boom.

However, to assuage the concerns of the habitually warring and suspicious factions in the industry, the Telecom Act did not simply establish broad policy goals—such as competition in all markets and less regulation—and then leave it to the FCC to achieve them. Rather, the statute itself sought to micromanage the implementation. Unfortunately, the result has been a legal gridlock that has, so far, thwarted achievement of the Act’s fundamental objectives.

As we know, the Act set numerous implementation deadlines, specified three pricing methodologies for ILEC-CLEC interconnection, established a detailed system for negotiating, mediating and arbitrating interconnection agreements, and imposed a 14-point checklist to be satisfied before a Bell could offer long distance services. There is nothing substantively wrong with these policies except that they took away much of the freedom of the implementing agency—the FCC—to adjust policies later in light of unexpected or changed circumstances...such as the rapid development of the Internet or a monumental “bust” in investor confidence.

If the Act took flexibility from the FCC, it took even more from the States. With respect to local competition, it is useful to recognize that the Telecom Act was neither revolutionary nor innovative. Rather, the Act largely codified into national law and policy the results of many experiments conducted by State public utility commissions (PUCs) over the prior decade to introduce local competition.1

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1 Local competition (at least in the modern era) did not start with the Telecom Act. Rather, it started when the New York Public Service Commission, in mid-1985, issued a Certificate of Public Convenience and Necessity to Teleport Communications, proposing to provide local high-capacity private lines in New York City. By the early 1990’s, many other PUCs had authorized “Competitive
This state-by-state experimentation – with its admittedly untidy look of “muddling through”—did not provide the “certainty” and “predictability” sought by investors. Ironically and not appreciated by investors at the time and perhaps even today, “muddling through” was and is much less risky than a single federal policy, particularly one that gets “gridlocked” in interminable due process. That is because “muddling through” in the States allows for a continuous and low-risk iterative process of field experimentation, testing, and fine tuning of business strategies and public policies before irrevocable, major investment bets are placed.

Although the Act stopped the state-by-state experimentation, it did not empower the FCC to undertake its own experiments. Instead, everything became a single high-risk roll of the dice. Now, every FCC decision—because it has such far-reaching application—literally becomes a “federal case” and leads not to finality but to litigation, with fundamental decisions being made not by an expert agency but by judges and their law clerks. This sort of gridlock cannot engender investor confidence.

It is also important to note that the Telecom Act also gridlocked the entry of the Bell companies into long distance markets. The flexible standard of sec. VIII(C) of the MFJ became the detailed, specific and rigid “14 point checklist” of the Telecom Act. Each of the 14 points became a point of contention, friction, and delay…more gridlock wearing away investor confidence.

Access Providers” (CAPs) to provide unswitched local services. In so doing, the States had required “central office collocation,” later known as “collocation” after the FCC ratified the various PUC decisions, and some forms of loop unbundling to facilitate this initial phase of local competition.

The pattern repeated for switched local services: in 1994 the NYPSC authorized the first competitive local exchange service in the country and by the end of the following year –1995 -- fourteen “Competitive Local Exchange Carriers” (CLECs) had installed 70 competitive central office switches. Such issues as mutual compensation, now known as “reciprocal compensation,” number portability, and OSS interconnection were being addressed and had been at least partially resolved on a state-by-state basis.

2 “The restrictions…shall be removed upon a showing by the petitioning BOC that there is no substantial possibility that it could use its monopoly power to impede competition in the market it seeks to enter.”
Ironically, by the end of 1995, at least two Bell companies (New York Tel and Illinois Bell) were ready to seek interLATA relief under the MFJ standard on the basis of competition in their major markets (i.e., New York and Chicago).

Whether Judge Greene would have granted their initial applications is, of course, unknowable. But my involvement in negotiations with Ameritech and the Department of Justice leads me to conclude that Judge Greene would have allowed them to enter to establish the regulatory carrot that would encourage other BOCs to open up and to begin to free themselves from the MFJ stick. My guess is that most BOCs would have been in most of the long distance market years earlier if the Telecom Act had not passed.

In the guise of promoting competition, the Act and the FCC regulations that followed have created an enormous regulatory apparatus and set of requirements. The Act has created a set of companies and industries whose very survival is by the good graces of federal regulators. This dependency relationship is not one that makes for a healthy policy environment or acceptable investment risk.

If the Telecom Act has increased investor risk by eliminating experimentation and gridlocking decision-making, what should be done? My answer, of course, is to increase experimentation and reduce gridlock.

I expect that CITI’s final report, due in October, will provide a comprehensive set of recommendations on these and many other topics. At the present, I can think of a few things that could be done to simultaneously encourage experimentation and reduce the gridlock:

1. **First, wherever possible under the law and Constitution, the FCC should use the States as laboratories, particularly on local telecom issues.**
As they did in the past, a few States will make decisions that the FCC will regard as “good” and a few others will make “poor” decisions. Then it is likely that other States will copy and improve the “good” results and, when the evidence is clear and convincing, the FCC can quickly and confidently make national policy based on experimental evidence rather than speculation...no more risky rolls of the dice.

I believe that investors would soon understand and appreciate the certainty, predictability and risk containment inherent in State-federal experimentation and, as a result, be more willing to invest on more favorable terms.

2. Second, the FCC should reform the carrier-to-carrier “negotiation and arbitration” process established by sec. 252 for interconnection agreements to encourage experimentation and minimize regulatory involvement.

It is important to remember that many of the issues that are consuming the FCC and the industry and bothering investors – including unbundling, collocation, reciprocal compensation, quality measures – can and should be determined by the negotiation and arbitration process established by sec. 252. That is the “deregulatory” approach to carrier-to-carrier relations envisioned by the Act.

By “fixing” the interconnection agreement process\(^3\), there would be no need for endless speculation about whether UNE-P is good, bad or

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\(^3\) My recommendation is that the FCC should specify the use by State Commissions of “baseball arbitration,” where one side wins all the disputed issues and the other loses every issue. The arbitrator would be guided by the goals of the Communications Act. The mere prospect of “baseball arbitration” should encourage early, non-regulated settlement since it forces parties to be reasonable and start at the middle rather than at the extremes in the expectation that an arbitrator will “split the baby.”
indifferent or whether “bill & keep” is a better mutual compensation system. The real-world results of a variety of interconnection agreements – the results of experiments -- would speak for themselves. The proven answers can then be applied to subsequent negotiations, arbitrations and the few regulatory decisions that still might be needed.

I appreciate the opportunity to appear before you this afternoon. I look forward to sharing with you and other policy-makers the results of CITI’s “Remedies for Telecom Recovery” project. I’m confident that our research and analysis will help you to get to the root causes of the telecom industry’s meltdown and provide you with a clear understanding of the sort of policies that can prevent or at least ameliorate the impact of subsequent downturns.

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States should also be encouraged to use private, expert commercial arbitrators to speed the process, lower the cost and reduce regulatory gaming, with the State’s role being limited to reviewing and adopting the arbitrator’s decision.

Any agreements, negotiated or arbitrated, should only be subject to “opt in” by other parties, not “pick & choose” to encourage real bargaining and to ensure that there are a substantial variety of experiments.

Finally, the geographic scope of arbitrated (but not negotiated) agreements should be limited to relatively small areas – perhaps as small as exchange areas—so that there will be many different arbitrated arrangements within a State and even between the same two carriers. Each of these different arrangements will be an experiment, the results of which can be fed back into private carrier-to-carrier negotiations (perhaps between the carriers to make all their agreements uniform) and better informed, less speculative regulatory policies and future arbitrations.