Testimony Summary of Scott Cleland, CEO of the Precursor Group®
"Global Crossing's Bankruptcy: A Window Into a Broken System of Protecting Investors"
Before the House Financial Services Oversight Subcommittee, March 21, 2002

I am Scott Cleland, founder and CEO of the Precursor Group®, an independent research broker-dealer, which provides telecom-tech investment research to institutional investors. Our business interests are aligned with investors' interests – actual and perceived. We do no investment banking for companies; do not manage money or trade for proprietary gain; and our researchers may not trade individual stocks.

Global Crossing's bankruptcy is not unique. Its part of a broader **telecom debt spiral** in the sector. Many telecom companies have preceded Global Crossing into bankruptcy and many more lurk in what Precursor calls the **"insolvency zone,"** where creditors and investors question whether a company will be able to outgrow its cost of capital long term. **Telecom is in crisis** because the sector is highly interconnected and interdependent**.** Since 1996, telecom companies have raised over $2 trillion from banks and bondholders. It is instructive to recall that a potentially similar financial problem in the 1980's, the Savings and Loan debt crisis, ultimately cost taxpayers over $200 billion to remedy.

The recession is not the *cause* of these telecom bankruptcies, *only the trigger*. Nor is the cause what **Federal Reserve Chairman Alan Greenspan called "irrational exuberance." I surmise the real causes were the "rational manipulation" of the capital markets system and the "irrational economics" of the telecom/Internet sector, which created and burst the NASDAQ market bubble.**

"Rational Manipulation?" Global Crossing's bankruptcy is a wake up call to Government overseers of troublesome patterns in the capital markets system for protecting investors and pensioners.

1. **We must improve our clearly inadequate investment research system; it can't even expose a "trillion dollar fib!"** Investors, who depend on investment research for an objective assessment of the facts and due diligence, were not informed that the single most important trend buttressing Global Crossing's business model and that of all the other data growth stocks was, and had been, hugely overstated and inflated for years! **Gross misrepresentation of demand for data traffic fueled roughly a trillion dollars worth of stock appreciation from 1996 to 2000 that has since cratered.**

2. The current system also makes it **hard to use investment research that is free of investment banking company bias** that may be better at discovering the problems behind a Global Crossing. In response, the Precursor Group, Argus Research and Egan-Jones are **forming the InvestorSide Research Association**. Its mission will be to **"increase investor and pensioner trust in the U.S. capital markets system through the promotion and use of investment research that is financially aligned with investor interests."** We are currently recruiting additional members and also recruiting organizations and individuals who support this mission to join the Association's Advisory Board. The website will be www.investorsideresearch.org.

3. **We must make our capital markets system much less prone to manipulation.** Growth or "story stocks," like Global Crossing, have become the most prone to manipulation. Moreover, the options-compensation culture we have created for company management can **perversely incent the managements of publicly traded companies to engage in the high-risk behavior** that this hearing is about today. The one-way upside nature of options can encourage high-risk "tricks of the trade" to lift their stock price. **Many of these management "tricks of the trade" may be widespread in telecom**: increasing revenue recognition through swaps, writing off costs to improve forward-looking results, booking phantom revenues, creating tracking stocks, "managing" earnings estimates, and promoting pro-forma financial performance rather than GAAP results, among others.

"Irrational Economics?" Finally, Government telecom /Internet policies are also at the root of the current "telecom debt spiral." The Government essentially: commercialized a not-for-profit Internet peering model; heavily subsidized the use of data at the expense of voice telecom; promoted competition in an uneconomic way; and created an unreal tax-free haven that helped fuel wildly unrealistic expectations. **Current Government telecom/data competition policies are massively deflationary, and have become, unwittingly, anti-profit, anti-investment, anti-growth, and anti-job creation.**

Written Testimony of
Scott C. Cleland
Chairman and CEO
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"Global Crossing's Bankruptcy: A Window Into a Broken System of Protecting Investors"

Before the House Committee on Financial Services
Subcommittee on Oversight and Investigations

Hearing on

"The Effects of the Global Crossing Bankruptcy on Investors, Financial Markets, and Employees"

Thursday, March 21, 2002

I. Introduction

Mr. Chairman, thank you for the honor of testifying before your Subcommittee and for the Subcommittee's interest in the perspective of an *independent investment research broker-dealer*.

My testimony includes:

- An explanation of the Precursor Group® perspective
- Introduction and outline of my remarks
- Broader lessons learned from Global Crossing bankruptcy
- Conclusion

II. Precursor Group® Perspective

I am Scott Cleland, founder and CEO of the Precursor Group®, an independent research broker-dealer, which provides investment research to institutional investors. My partner, Bill Whyman, and I founded the Precursor Group® very intentionally as an *independent* firm in order to better serve our investor clients' interests and not to serve companies' interests or investment banking interests. We have learned that the investment research marketplace is thirsting for trust, and our business is trying to quench a part of that thirst.

Our business is simple. We work for institutional investors; they pay us research commissions on their trading to the extent that we help improve their investment performance.

- If our research helps investors identify opportunities or avoid pitfalls, we get paid in directed trading commissions.
- If our research does not help investors, we do not get paid.
- We have a market-driven, merit-based business model.

We are unusual in that we are a pure research firm in a business dominated by integrated full-service brokerage firms that bundle investment banking, trading and research. **We are exclusively an investors' broker-dealer**, akin to a buyer's broker in real estate. We are not the traditional sellers' or company broker-dealer, which tries to represent *both* companies' and investors' interests.

We have done our best to align our financial interests with investors' interests. We are very serious about avoiding conflicts of interest, actual and *perceived*, so we:

- Do no investment banking for companies;
- Do not manage money or own a stake in any companies;
- Do not allow Precursor Group® researchers to trade individual stocks – as a condition of employment (which exceeds NASD rules); and
- Do not trade securities for proprietary gain.
- We get paid through agency trading commissions, which is the primary payment mechanism that institutional investors use to pay for investment research.

We are a pure research firm because we do not believe one firm can well serve different masters at the same time: investors *and* companies. We strongly believe true independence yields better research.

III. Introduction and Outline of Remarks

I don't believe Global Crossing, the fourth largest bankruptcy in history, is unique. It is a wake up call to Government overseers of broad and troublesome patterns in the capital markets system and in the telecom/Internet marketplace.

- The recession did not cause Global Crossing to go bankrupt, and it was not what **Federal Reserve Chairman Alan Greenspan calls "irrational exuberance."**
    - **I surmise that it was more likely "rational manipulation" of the capital markets system by many for private gain; and**
    - **"irrational economics" of the telecom/Internet sector, which largely created the NASDAQ bubble that burst.**

The country has a much bigger problem than most may appreciate.

- The capital markets system that was designed to protect investors now may be being "rationally manipulated" by company interests.
- There's a serious "telecom debt spiral" going on that has Government policies based on irrational economics at the root of the problem.

Arguably these problems are at the heart of the economy's problems.

- Post-Enron, how do we restore investor trust in the U.S. capital markets system so investors again will entrust their capital with companies so the economy can grow and create jobs?
- How do we stop telecom, a key sector to the economy's growth and productivity, from being a long-term drag on the economy?

Telecom is in crisis.

- While Global Crossing's bankruptcy is getting a hearing, don't forget there have been over thirty more bankruptcies (like Teligent, Winstar, McLeod, ICG, PSINet, 360 Networks, and others.)
- The deflationary trends that helped take these companies down are now doing their work on XO, Metromedia, Williams, Level 3, Qwest, Sprint, WorldCom, and others.
    - While these companies are currently solvent, they are in what Precursor calls the "insolvency zone."
    - This means that investors are legitimately concerned that these companies may not be able to outgrow their cost of capital long-term.
    - Global Crossing and many other telecom companies were built with heavy debt assuming high growth; now that growth has slowed and projected demand has disappointed -- the math doesn't work.

This is no trifling matter. *The Wall Street Journal* recently reported that since 1996, telecom companies have borrowed more than $1.5 trillion from banks and issued over $600 billion in bonds. It is instructive to recall that the Savings and Loan debt crisis in late 1980s cost taxpayers over $200 billion to remedy.

IV. What broader lessons can we learn from Global Crossing's bankruptcy?

(A) We must improve our very inadequate investment research system.

(1) The investment research system can't even expose "trillion dollar fibs."

The "Trillion Dollar Fib!" Investors, who depend on investment research for an objective assessment of the facts and due diligence, were not informed that **the single most important trend buttressing Global Crossing's business model, and that of all the other data growth stocks, was, and had been, hugely overstated and inflated for years!**

- The conventional wisdom, repeated by almost everyone in the industry from 1997-2001, was that data traffic growth was doubling every three to four months—an extraordinary 800-1600 percent annual growth rate from 1996 through 2001.
  - Unfortunately, it simply was not true.
  - The actual growth rate had been closer to a 100-200% annual rate since 1997.
    - We believe the Precursor Group was the first investment researcher to challenge this exploding data traffic thesis in our February 5, 2001 research piece, "Datatopia – Why Data Transport Growth Stories May Disappoint," which used data from AT&T Labs. (See attachment).
- **Nonetheless, this exploding data traffic growth thesis was the core selling point for some of the hottest stocks the market has ever known.**
- **<u>This gross misrepresentation of demand for data traffic fueled roughly a trillion dollars worth of stock appreciation from 1996 to 2000 that has since cratered.</u>**
  - See the chart on the next page for the stock appreciation of the data traffic carrier models and their equipment suppliers.
  - Given that most institutional investors were unaware data traffic growth had slowed dramatically, Precursor believes that this repeated factual misrepresentation of exploding traffic demand could have contributed to inflating these companies stock.

It appears that there may be a **pattern of misrepresentation** in the telecom/Internet sector.

- In addition to this trillion-dollar data traffic investment thesis disaster, U.S. investors and pensioners lost roughly another trillion dollars of shareholder wealth on the Internet dot.com investment thesis where the new virtual economy was purported to obsolete the old economy.
- And investors have lost more than $50 billion dollars buying into the competitive Telecom Act investment thesis that has resulted in over thirty bankruptcies so far.

Was this merely "irrational exuberance" in the stock market? Or could there have been some "rational manipulation?"

All of these telecom-related investment theses were pushed by the investment research system, blessed by auditors, and completely missed by Government, and the mainstream and financial media.

- How many more trillion-dollar investment debacles need to occur before the inadequacies in our system of producing investment research get addressed?

(2) We must figure out how to get the system to pay for investor protection, not just pay promotion of stock prices.

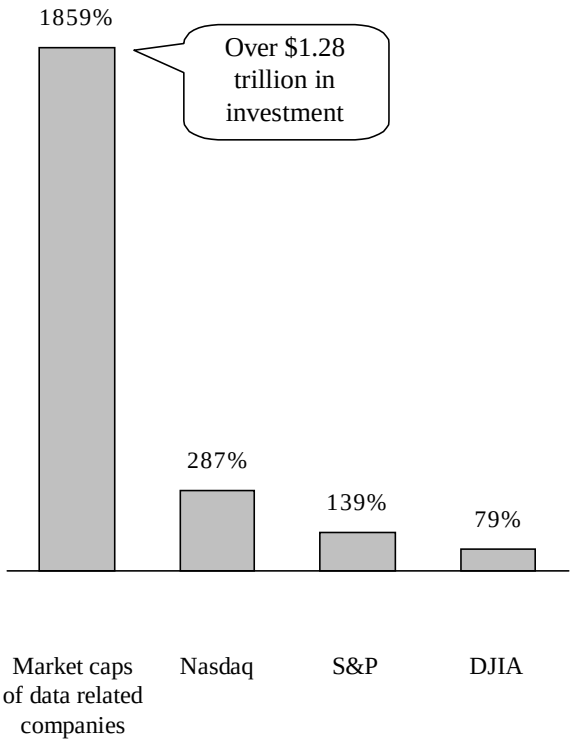
"The Trillion Dollar Fib" of Data Traffic Growth

(Market Capitalization of Data Related Companies, $Billions)

	1/1/96	1/1/00	3/18/02
Data Carriers			
Global Crossing	0	22	0
Level 3 Communications	0	28	1
PSINet	0	5	0
Qwest (excludes US West in 1996)	0	38	15
Williams Communications Group	0	11	0
WorldCom (excludes MCI in 1996)	14	151	21
Data Equipment Providers			
Ciena	0	8	3
Cisco Systems	42	369	121
Corning	2	32	8
JDS Uniphase	0	52	7
Juniper Networks	0	106	4
Lucent	0	230	16
Nortel Networks	11	278	15
Sycamore	0	22	1
Total Market Capitalization	**$69 billion**	**$1.352 *trillion***	**$212 billion**
Market Indices			
Dow Jones Industrial Average	5117.12	9181.43	10577.75
Nasdaq Composite	1052.13	4069.31	1877.06
S&P 500	615.93	1469.25	1165.39

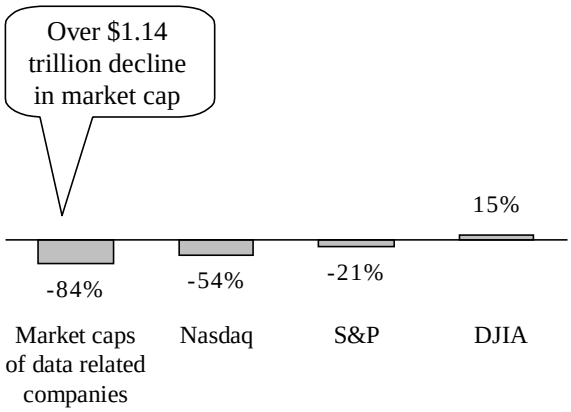
Bubble Rises with Data Growth Prospects . . .

% increase 1996 – 2000



"Irrational Economics" Help Burst Data Bubble

% decrease 2000 – today



Sources: Nasdaq; NYSE; Company reports; Precursor analysis

Better audits? The current system now makes it hard for a large public company to instill trust in its financial representation, because for all practical purposes, it cannot hire a top-tier auditor that does not have trust-eroding conflicts of interest that have been so painfully exposed by the Enron-Arthur Anderson scandal.

- **Unfortunately, the current public audit system appears to be heavily tilted toward what is best for auditors and companies rather than what is best for investors to entrust their capital with companies.**
    - It appears that the current system does not value producing non-conflicted audits that instill investor trust.
- If investors don't trust an audit to fairly represent the financial condition of a firm, the audit is more than worthless; it's all cost with no benefit.

Better Research? The current system also makes it hard to use investment research that is free of investment banking company bias that may be better at discovering the problems behind a Global Crossing. Investment banking is the proverbial "900-pound gorilla" that dominates the production of almost all investment research.

- The overwhelming funding source for investment research is directed trading commissions, which by regulation can only be collected by broker-dealers.
    - Regulation also requires that all broker-dealers must be licensed to do the complexities of investment banking even if they do no investment banking; this is a regulatory barrier to entry for pure research firms.
    - Competitive bond rating firms face similar regulatory barriers to entry that ill serve investors.
    - Moreover, the lack of transparency of commingled commissions for investment banking, trading and research mean that investment banking tends to rule the roost undermining the research function. (See our earlier testimony before the Subcommittee on Capital Markets June 14, 2001 at www.precursorgroup.com.)

- **InvestorSide Research:** To help correct this misalignment of research interests in the system, the Precursor Group, Argus Research and Egan Jones are forming the InvestorSide Research Association.
    - **Its mission will be to "increase investor and pensioner trust in the U.S. capital markets system through the promotion and use of investment research that is financially aligned with investor interests."**
    - We are currently recruiting additional members without investment banking conflicts and also recruiting organizations and individuals who support this mission to join the Association's Advisory Board.
    - Our website will be www.investorsideresearch.org.

(B) We must make our capital markets system much less prone to "rational manipulation."

(1) Our capital markets system has become much more prone to manipulation.

The old adage, "an ounce of prevention is worth a pound of cure," is especially applicable here. Arguably, the current reported SEC enforcement investigations of Global Crossing, Qwest, and WorldCom may not have been necessary if the system's first line of defense in protecting investors—auditing and research—were not so inadequate.

Over the last decade, I believe the system of investor protections that were designed into the system have largely been hijacked or watered down by highly sophisticated company interests. It is alarming the extent to which the system, originally designed to instill investor trust in the capital markets system, now is geared primarily to promote company interests. **Precursor believes there is a clear bias in the system to promote company interests over protecting investor interests.** For example:

- **Auditing:** Virtually all of the largest publicly traded companies are audited by the Big Five accounting firms, which like Arthur Anderson, all have deep consulting business ties to the companies they are supposed to police for the public.
    - Given that roughly half of the revenues and the lion's share of profits of the Big Five come from non-audit consulting, the business of the Big Five arguably is skewed to serving the private interests of companies more than the public interests of investors.

- **Research:** We estimate that investment banking driven investment research firms have over 95% market share of the investment research market.
    - This means that the financial interests that are driving the investment research system are overwhelmingly skewed to promoting company interests over protecting investor interests.
    - There is little counter-balancing research force in the marketplace representing investors interests, which has become painfully obvious in the wake of Enron, the Dot.com bubble, and the data traffic trillion dollar fib.

- **Lawyers:** Lawyers ethical obligation of reporting misrepresentation, or fraud, runs only to management that controls their pay, not to the Board of Directors that represent shareholders.
    - This effectively prevents another line of investor protection from occurring.
    - It seems like common sense that the Board, which is responsible to public shareholders, should be informed if the company's legal counsel has suspicions of wrongdoing that could materially affect investor interests.

- **Investor/public relations:** Companies have become highly sophisticated in accentuating the positive and playing down the negatives.
    - Reportedly almost half of the Fortune 500 now use "pro-forma" reporting of financial results.
    - Much of pro-forma reporting is essentially the company's made-up accounting that excludes whatever pesky information could undermine a company's outlook.
    - The investor/public relations operations of companies then emphasize the pro-forma characterization of the company and divert focus from GAAP accounting results that enable an investor to compare a company to all other investments.

- **Media:** The public's perception of companies is often driven by how the media characterizes them.
    - The companies understand this and actively manage their investor and public relations.
    - To the extent that the media gives headline or story prominence to pro-forma reporting or emphasizes Wall Street "expectations" versus actual GAAP financial performance, the media is unwittingly complicit in the system of misrepresenting the financial state of companies to the investing public.

(2) Growth or "story stocks" have become the most prone to manipulation.

The management of growth companies has learned from market experience that their stock price is more dependent on the *perception* than the reality of future growth. **This means that the price of a growth stock is all about what a company can convince the market that it can do in the future. It is all about "the story."** The best storytellers have the hottest stocks. Or in other words, the tallest tale, that the market can believe wins.

- There are legitimate growth stories that actually deliver—Microsoft and Intel being the most prominent.
- Unfortunately there have been many more growth stories like Global Crossing that have not delivered, as the slew of telecom bankruptcies and the $4 trillion NASDAQ 2000 crash can attest to.

What can make growth stocks so prone to manipulation is the tremendous pressure to make current financial performance conform to aggressive forward leaning expectations. This pressure, in addition to the options culture that will be discussed later, can encourage management to employ many available "tricks of the trade" to manage this dilemma.

Since the "future story" often has no financial results to speak of, companies and Wall Street have come up with creative ways to try to validate business models before they show actual earnings.

- Dot.coms were valued on audience *potential* and "hits."
- Data carriers were valued on *potential* data traffic growth; and
- Competitive telecom companies (CLECs) were valued on buildings built-out.

The problem is it is so much easier to tell a story and get the system to buy it than it is to actually deliver profit growth in the market place. Thus, in the capital markets system today, it <u>may perversely be easier to manufacture "stock currency money" to make acquisitions and buy profits, than it is to make real money and profits on one's own</u>.

(3) The options-compensation culture encourages high-risk behavior which when mixed with the capital-intensive telecom sector, is a recipe for the "telecom debt spiral" the sector is in today.

Contrary to conventional wisdom, compensating company management primarily with stock options does not completely align management's interests with shareholders as much as paying them in actual stock would. Options are just that—an option to benefit on the upside without the same risk on the downside. The options culture encourages growth and high-risk behavior.

- In the entrepreneurial, risk-embracing tech sector, the options culture can work exceedingly well.
- **However, in sectors with lower risk tolerances like telecom, which is a hugely capital-intensive infrastructure business that absolutely depends on long-term debt financing to make the business model sustainable, an options culture can encourage the disastrously inappropriate aggressive growth behavior that we have recently seen in telecom.**

In no way am I saying that company management should not be rewarded handsomely commensurate with the financial performance of their firm. What I am saying is that options only fully align management's interests with shareholders in a growth environment with an appreciating stock.

- **<u>In a slower growth environment like today, management's dependence on option compensation can encourage management to do "whatever it takes" to re-inflate their stock – even if it risks the company's capital preservation or survival.</u>**
- Moreover, it may not be management's capital at risk, but rather shareholders' capital. In a tough environment, shareholders are more interested in having management preserve capital than rolling the dice for a big stock-inflating score.
- **An options culture can encourage management to view the balance sheet as a piggy bank to fund stock growth increases with debt.**
    - In telecom, overextending or wasting a balance sheet can prove disastrous, just ask Global Crossing, AT&T, McLeod, Teligent, Winstar, etc.

The one-way upside nature of options can perversely incent the management of publicly traded companies to engage in the high-risk behavior that this hearing is about today.

- **There are many stock-enhancing "tricks of the trade" that management can permissibly engage in, sometimes with the help of outside advisors, investment bankers, research analysts, accounting consultants, and lawyers etc., to lift their stock price.**
- Some of these "tricks of the trade" are:
    - Hiding debt off-balance-sheet in special purpose entities (alleged of Enron);
    - Increasing revenue recognition short-term through fiber capacity swaps (alleged of Global Crossing, Enron and others), and equipment/services swaps (alleged of Qwest);
    - Increasing revenue recognition short-term with 200% equipment vendor-financing (alleged of many equipment companies);
    - Writing off costs to improve forward-looking results (alleged of WorldCom and many others);
    - Writing off over $50 billion in goodwill and saying it doesn't matter (alleged of JDS Uniphase);
    - Continuing to book revenues from former customers (alleged of Winstar);
    - Backdating revenues to maintain the expected revenue growth trajectory (alleged of MicroStrategy);
    - Creating tracking stocks to supposedly "unlock shareholder value" (WorldCom and Sprint);
    - Buying a company solely to acquire revenues to avoid a debt triggering convenant (alleged of Level 3);
    - Selling an asset to avoid a debt triggering covenant (alleged of Sprint);
    - Managing earnings estimates (alleged of Cisco and many others);
    - Allowing supportive analysts to see more financial detail than non-supportive analysts (alleged of WorldCom);
    - Promoting pro-forma financial performance rather than actual GAAP results (alleged of many companies);
    - Declaring that the company has "no visibility" about future demand while simultaneously expressing confidence about eventually returning to 30% plus growth (alleged of Cisco);
    - And the list can go on and on.

(C) "Irrational Economics:" Government telecom and Internet policies that artificially stimulated supply and demand are at the root of the current "telecom debt spiral."

Government policies have powerfully subsidized and encouraged demand for data and the supply of data facilities.

- A large part of the current market problem with data-related business models is that Government policies fostered what Precursor calls a "datatopian" environment that lacks real world economics, which requires profits and return on investment.
- Government data policies have created an uneconomic data house of cards where costs were very high and revenues could not keep up with them.
- **The data marketplace, as constructed by Government, is unprofitable and it's contributing to the telecom debt spiral.**

First, the U.S. Department of Defense effectively created the Internet in 1969 as a commune system where each research lab that connected to the Internet data system paid for its own connection. This was a Government and research communications system, not a market.

- In 1991, the Government endorsed the commercialization of the Internet through the National Science Foundation.
- The Government effectively commercialized a "not-for-profit" system where each computer owner paid for its connection, but no one commercially supported the maintenance of the overall system.
- This not-for-profit system evolved into the current "peering" commercial system where similar carriers peer on negotiated terms.
    - This system offers little potential for pricing power to generate profits.
    - Consequently by June 2000, UUNET, the leading carrier of data traffic in the country with roughly one-third-market share, said they were unprofitable.

Second, to promote computer innovation, the FCC has had a policy since the late 1960's that **favored the use of data communications over voice**; this "enhanced service provider" (ESP) exemption exempted data traffic from the access charges voice traffic paid to maintain the overall system and universal phone service.

- This conferred roughly a 40% cost implicit arbitrage advantage for data over voice.
    - In practical terms, this implicit Government subsidy of data over voice enabled Internet Service Providers (ISPs) to charge roughly $20 a month rather than roughly $40 a month, because ISP's did not have to pay the same amount for the use of the network as voice users did.
    - **This multi-billion dollar annual implicit Government subsidy encouraged the exploding amount of data traffic being carried, which in turn increased the cost dramatically of maintaining the Public Switched Telecommunications Network (PSTN).**
        - While the PSTN voice system was designed for three-minute average phone calls, the average length of time for a data call was many multiples of the system's voice design.
        - FCC's data subsidy policies enabled flat rate ISP pricing in the U.S., which encouraged heavy use, or "surfing," that would not occur if people paid per minute.
        - This subsidized, or "free lunch," policy helped fuel the dot.com bubble, because it was so cheap to stay online.
        - This flat rate policy also was unique to the U.S. during the bubble; all other countries kept per-minute data use models to enable their carriers to recover the cost.
            - Consequently, other nations online use and growth lagged the U.S. dramatically.

Third, in 1996, Congress passed the Telecom Act which changed U.S. communications policy from endorsing monopolies, which promote universal phone service, to promoting competition and deregulation, which lowers prices for consumers and spurs innovation. The FCC aggressively promoted U.S. competition policies around the world.

- **Without the new competition policy in the U.S. and around the world, and without the Government's active assistance in securing interconnection in the U.S. and around the world, Global Crossing and other data carriers could not have existed or raised public capital.**
- **With the Government as the data industry's effective champion** against monopoly incumbents and intransigent Governments, the Government provided cover and "official" validation of the investment bankers and companies "growth stories."
    - **Investors lost billions of dollars by trusting that the Government knew what it was doing and believing the data growth stories told by the companies and effectively "supported" by Government policymakers**.
- The fundamental economic problem with the 1996 Telecom Act is that it took a highly capital-intensive infrastructure industry and introduced massive competitive and technological risk and increased price regulation without a clear realistic way for the companies to make a sustainable profit or return on investment.

Fourth, Congress also passed the Internet Tax Moratorium in 1998, creating a special no tax zone for economic activity that happened to occur over data rather than over the phone, in person or in a physical location.

- **This only added Government endorsement to the "datatopian" economics of the Internet and that there was indeed a "free lunch" where dot.coms and data traffic companies could generate multi-billion market capitalizations without any profits and with long shot business models.**

Finally, current Government telecom/data competition policies are massively deflationary; they are unwittingly, but very effectively, anti-profit, anti-growth, and anti-job creation.

- The Telecom Act and regulatory implementation has adopted competition as an end in itself when it is really just a means to an end.
- The market has figured out that the Telecom Act and its implementation has been an unmitigated disaster, but the Government sure has not.
- The Government is continuing to pursue competition even when it is economically irrational, deflating economic growth, destroying jobs and shareholder wealth, and ill serving consumers.

V. Conclusion

Global Crossing is telecom's Enron. It exposes a deeper pattern of problems and highlights that Enron was not an isolated incident.

- Global Crossing won't be the last bankruptcy in this sector. Many more bankruptcies lurk in the "insolvency zone."
- Many more investors, pensioners and employees will lose much more wealth because the system so poorly protects their interests.

We submit this testimony to help bring the overall problem into better perspective. There are no easy "silver bullet" solutions, however, the Government can:

- Improve the inadequate investment research system to prevent future trillion dollar fibs;

- Discourage the "rational manipulation" of the capital markets by protecting investor interests; and
- Undo the irrational economics the led to the telecom and Internet.

The system of protecting investors and pensioners is much more susceptible to manipulation than most appreciate and it needs substantial bolstering. It won't get fixed without comprehensive market reform.

Thank you again Madame Chairwoman for the honor to testify before your Subcommittee on this important topic.

Attachments

Precursor Research

"Datatopia" – Why Data Transport Growth Stories May Disappoint, February 5, 2001
Telecom's Debt Spiral, February 5, 2002
Why Telecom is Decoupling From Overall Economic Growth, March 6, 2002

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February 5, 2001

"Datatopia"—Why Data Transport Growth Stories May Disappoint

(Part Six in a Reexamining Telecom-Internet Investment Themes Series)

Summary: Precursor is skeptical about the market's expectations for continued data networking revenue hyper-growth. **Precursor questions expectations for sustained hyper-growth in Cisco's data carrier business over the next few years as well as hyper-growth prospects for data carriers and fiber optic players.** *Precursor sees these businesses as fast revenue growers, but believes that hyper revenue growth expectations stretch credulity.* Precursor believes the **last 3-5 years of data networking were more an aberration than an accurate indicator of the future**. Too many investors appear to still be relying on the growth trajectory of past data networking financial trends as a strong indicator of the future growth trajectory. Past momentum *can be* an outstanding future indicator *unless* there is **discontinuous change** — which is precisely what Precursor believes is happening in the data sector. Many investors have to see "the whites of the eyes" of bad numbers before "pulling the trigger." By then, it can be too late. Precursor further cautions investors that the foundation of the data story is unlikely to be able to support the weight of hyper revenue growth expectations.

Why Data Past is a Poor Indicator of Data Future:
(1) Discontinuous change: It's unlikely the next 3-5 years will experience anything like the Internet/dot-com mania and subsequent flame-out. It's unlikely the second half of U.S. households will go online as quickly as the first half did in the last five years. It's unlikely there will be a repeat of investment banking "gold rush" triggered by the 1996 Telecom Act, which over-funded dozens of CLECs and data carriers. **(2) More momentum than propulsion:** Rockets need fuel and oxygen to keep accelerating or maintain speed. The data "growth rocket" of the last 3-5 years also needs the constant "fuel" of ongoing demand and economic growth and the "oxygen" of plentiful capital. Precursor suggests data growth is currently more momentum than propulsion given that the economy and capital expenditures are slowing, the telecom sector is over-leveraged, and access to capital has become difficult. **(3) Broadband Can't Grow Like Dial-up:** (A) Dial-up prices are half of broadband prices. (B) Dial-up requires minimal installation cost, time, and hassle; broadband installation is an expensive, time-consuming hassle for consumers and businesses. (C) The local telcos' network upgrade cost for dial-up data service on voice lines is minimal because it requires little network modification; broadband (DSL and cable) requires expensive network reengineering. Many under-appreciate the very different impacts dial-up and broadband have on last mile networks; **dial-up is easy and relatively cheap while broadband is hard and costly**.

Data Revenue Growth Expectation's on Weak Foundation:
(1) Data traffic growth is actually slower than the hype: Much like the popular myth that "voice will be free," **hyper data traffic growth appears to be over-hyped as well**. Conventional wisdom still believes data traffic doubles every 90 to 120 days. While this may have been true for a brief, anomalous period in the mid-1990s, industry studies estimate that in reality, data traffic doubles roughly once a year (Coffman and Odlyzko). **This implies a ~100% annual data growth rate — which is substantial by any measure, but is significantly lower than the 800% to 1600% implied by the popular "doubling every three to four months" myth.** Hyped traffic growth rates obviously would increase expectations for more frequent equipment upgrades than the slower rates industry studies suggest. **(2) Highly distorted artificial market:** Hyper revenue growth depends on an efficient marketplace where prices and costs are based in reality. Precursor reiterates that few appreciate that the data market is not the "free market" that most imagine, but more similar to the proverbial "free lunch." Investors should not forget that the *original* data industry model was created as an academic, **NOT-FOR-PROFIT model**. (Pre 1991, NSF, the Internet overseer, had a no-commercial-use policy.) Each computer user paid only for their link to the rest of the network, and no mechanism was necessary to arbitrate recovery of asymmetric costs generated by others — because it wasn't organized around a profit motive. So more than most appreciate, the old not-for-profit structure lives on through "peering," where companies negotiate how they interconnect to each other's networks. Unfortunately the "peering" structure depends on carriers being true "peers." If not peers, the arrangement can require uneconomic (unprofitable) cooperation and does not provide much pricing leverage. (UUNET, the one company that has some pricing power, is under the watchful eye of the DOJ antitrust Division.) Free markets inherently are driven by economic self-interest; the Internet model was organized to serve the collective interest. **(3) Poor Industry Business Model:** Hyper revenue growth results from a robust business model. (A) By government policy design over the last 30 years, the Internet/data model disproportionately benefited the "information service" companies that ride on the networks at the expense of the "telecom service" carrier. Interconnection and nondiscriminatory access requirements limit carriers' market leverage in order to benefit users. (B) Packet networks strategically forfeit control of the network to users. Control of the network's functionality and how it's used can represent substantial business and price leverage. As @Home's CEO famously said: "no one wants to be a dumb pipe." (C) The current data networking model also encourages uneconomic behavior: e.g. Napster's file sharing creates enormous costs that are not borne by those generating the costs, because "the Internet is supposed to be free." * * * * *

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Scott C. Cleland
February 5, 2002

Telecom's Debt Spiral

Summary: Precursor advises **relatively more under-weighting of the telecom sector** as "Enron-itis" fears exacerbate an already bad debt and overcapacity imbalance. The fundamental health of this **sector is likely to get worse before it gets better**. Precursor **now advises wholesale avoidance of the competitive telecom segment and the equipment players, especially the data and optical segment**. The relatively reliable positive cash flow of Verizon, SBC, and Bell South may only be a relatively safe haven in this very risky sector. The combination of: the sector's anemic growth outlook, the cannibalizing competitive mega-trends of wireless substitution, voice to data migration, Bell entry into long distance combined with local competition, and the bubble-induced excesses in debt and over-capacity, all create a powerful wealth destroying dynamic. **Telecom's "debt spiral" has gotten so bad** that even the relatively strongest players who are still able to raise significant capital (VZ, SBC, and BLS) don't want to assume any more liabilities or business risk. Consequently, **Precursor is reversing its long held view that consolidation can help improve the sector from excess capacity and debt any time soon**. This is no longer a growth, but a preservation of capital, sector dynamic. Precursor now **no longer believes that Qwest or Sprint shareholders can expect much of a takeover premium**, if they are lucky enough to be merged with SBC and Verizon at all. **Without expectations of robust growth in this debt-ridden, risky, high fixed cost, increasingly competitive sector, the math of many business models simply does not work.** More bankruptcies lurk.

Telecom's Debt Spiral: **(A) "Enron-itis" has infected telecom.** Two more Andersen-audited, debt-heavy, forward-leaning companies, Global Crossing and McLeod, just declared bankruptcy. Five more are now drawing suspicion by association: WorldCom, Qwest, Level 3, Allegiance, and XO. The market apparently has realized that heavy debt does not mix well with an anemic growth outlook. Falling equity values can lead to debt-rating downgrades, which weakens already tenuous business models and further scares investors away. **(B) Market's no longer giving telecom the benefit of the doubt.** The market's post-9/11 momentum rally effectively winked at telecom's real growth prospects. However, so many high profile and hard-to-ignore bankruptcies have the market worried about its "backside" as well as its upside. It's hard to "visualize" equity growth through a fixed-income solvency lens. Flipping from anticipating beta and growth to anticipating bankruptcies contributes to a downward dynamic. **(C) Competitive telecoms must have growth expectations for their math to add up.** Without growth, there's less stock currency to borrow against or grow by acquisition, no takeover premium for investors, and no way to stay ahead of the debt man. Heavy debt plus no growth equals negative real growth. **(D) The debt overhang prevents the work-off of the huge over-capacity in the market.** No company wants to take on more debt in order to cull the over-capacity in the system. And, bankruptcy does not necessarily eliminate over-supply; it only resurrects it on competitive steroids. The competitive dynamic of high fixed costs forces players to chase incremental revenue by slashing prices to just above variable costs, which are far below average fixed costs. This can create a vicious dynamic like that continually experienced by the steel industry, where over-capacity never gets worked out, prices get slashed, and investors get left holding the bag. **(E) Imploding fundamentals create business risk contagion for all involved in telecom transport business.** (1) While the tectonic network shift from voice to data traffic was long-touted to be a good thing, "data-topian" pricing makes data traffic so dramatically less profitable than voice traffic that profitability can't be made up on volume. (2) The mega-trend of wireless substitution for wire-line minutes effectively transfers huge shareholder wealth to consumers. It increases net costs in the system while reducing net revenues—a highly deflationary dynamic. (3) Bell entry into long distance combined with local competition has a similarly deflationary dynamic: the system's net costs surge with massive regulatory intervention and inefficiency, while net revenues plummet with competition and the FCC's deflationary UNE-P and TELRIC resale rates. **(F) Surviving today can mean disinvesting in tomorrow.** Like a rapidly dropping hot air balloon demands its occupants throw anything big overboard, competitive carriers need to make big cost cuts; the prime candidates are more capital expenditures and people.

Few Forces Able to Pull Telecom Out of Its Debt Spiral? (A) Even when the economy emerges from this telecom-tech induced recession, the telecom-tech sector will remain decoupled from the performance of the rest of the economy, because telecom-tech has gone from "economic propeller to growth anchor." Telecom will not only lag the recovery, but also serve as one of the leading drags on the rest of the economy for *at least* the next year. (B) Apparently, the market does not see any credible new "killer apps" or any big steeply-increasing demand curves out there as online access, wireless, and computer growth rates are maturing. Video file sharing is one of the few potential major demand catalysts out there. (C) And material de-regulation relief from the FCC is likely still quarters away, or even longer, from the states. Policymakers throughout the Government remain largely oblivious to both the magnitude and economic implications of the telecom-tech meltdown and the destructive role government competition policy has played in helping precipitate this market debacle. * * * * *

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March 6, 2002

Why Telecom is **Decoupling** From Overall Economic Growth

Summary: Precursor advises investors to **rethink the bedrock telecom investment assumption:** ***that the telecom sector generally grows significantly faster than the economy***. With the economy now bouncing back, a technical or historical view could suggest telecom *stocks* may outpace the market. However Precursor's analysis indicates that telecom's future will be very different from the 1990s and that, ***fundamentally,*** **the telecom sector has largely become *decoupled* from the larger growth engine of the overall economy**. Telecom has developed its own countervailing and highly deflationary economic fundamentals; it's gone from an economic propeller to a drag on the economy. The critical "backbone" transport segment, the third of the sector that interconnects every carrier, effectively is imploding—"dead model walking." And highly deflationary government competition policies effectively are eroding margins for most of the rest of the sector. This tele-deflationary dynamic reinforces the broader trend in the economy, where consumers are sucking value from producers in the form of increased competition and lower prices. **Precursor reiterates its advice to continue under-weighting telecom, because for the foreseeable future, telecom overall will grow relatively slower and margins will increasingly come under pressure.**

I. Investment Implications of Slower Growth Far-Reaching. (A) The current cascade of **telecom bankruptcies could eventually reach Qwest, Sprint, Level 3 and WorldCom**. Debt-laden transport business models may now be entering "the insolvency zone," where *without growth or strong faith in their future growth potential*, they may not be able to continue to convince creditors that they can stay ahead of their *increasing cost of capital*. High-fixed cost companies can't easily cost cut their way to *long-term* solvency. (B) **Much of the "juice" in past aggressive growth and momentum investing may be over for a while,** given that the peak of the bubble was driven by roughly seven NASDAQ telecom-data stocks with eye-popping runs: Cisco, JDS Uniphase, Juniper, Sycamore, Ciena, Nortel, and Corning. Chronic over-capacity and over-regulation means precious little new capex spending anytime soon. This may suggest a *new fundamental bias toward value over growth in telecom investing*. (C) **Consolidation and IPOs could be much more modest** without high-flying stocks as currency. Since companies pay an acquisition premium for growth, future consolidation could be less satisfying for shareholders.

II. "Tele-Deflation:" Why Telecom Growth Rate Is Slowing. **(A) Real core demand is slowing and changing.** (1) For new business, growth curves are beginning to plateau across the sector for reasons largely unrelated to the recent recession. From 2000-2001, Precursor estimates that growth has slowed: for wireless subscribers from 27% to 18% with 46% penetration; for PC homes from 33% to 10% with 57% penetration; for online subscribers from 99% to 20% reaching 51% penetration or 90% of computer households; and for broadband subscribers from over 200% to 70% at 10% penetration. (2) There's also a dearth of new potential "killer apps" on the horizon. Ultra-Wideband may be the best *potential* candidate, but that is more a 2003-4 and beyond story. (3) Incremental subscribers going forward generally have less upside profitability and have higher risk of churn. **(B) Government competition policies have made *core* traditional markets uneconomic and have created a hostile investment climate.** The Telecom Act's flawed "unbundling at cost" premise has: devalued telecom facilities; discouraged new investment; added huge regulatory costs with little value-added to the customer; and skyrocketed business risk with no offsetting way to earn back the new risk premium. Government resale competition policies are largely price-regulation, regulatory re-branding exercises that create little customer or shareholder value. The capital markets now view the FCC's TELRIC resale policies (especially UNE-P) as value-destroying government redistribution of market share. Government competition policies have encouraged overcapacity in transport and wireless networks, which has helped spawn the unintended consequence of the "*Telecom Debt Spiral*" dynamic (see *Precursor 2/5/02)*. **(C) Tech trends are deflating profitability and shifting value from producers to users.** Contrary to conventional wisdom, convergence is less about growth and more about cannibalistic competitive risk. Overall, the consumer expects more services for a lower overall price. In general, technology is now deflationary; it is expanding capacity much faster than demand can consume it. These dramatic increases in efficiency are accelerating commoditization. In particular, data growth is highly deflationary because low data margins erode high voice margins. Wireless substitution is highly deflationary because a faster-growing, less profitable wireless business is cannibalizing the very profitable wireline business. **(D) Pricing trends are "flattening" revenues and profitability.** (1) One of the most ominous trends undermining telecom revenue growth and profitability is the inexorable trend of consumers/businesses demanding flat-rates over usage-based rates (e.g., 800 service, special access, data, wireless buckets of minutes, and now AT&T's new flat rate long distance plan). This flat-rate trend is a double whammy because flat-rate pricing models grow revenues more slowly than usage-rate models and because the risk of recovering the cost of incremental investment shifts from the user to the producer. (2) Finally, the trend toward "bundling" is less about growth and more about defensively reducing competitive churn. * * * * *