

The U.S. Telecommunications Capex Spending - Challenges and Opportunities -

The U.S. telecommunications sector isn't spending capital like it used to. In fact after a dizzying increase in Capex spending in the last few years, 2001 and 2002 will be major retrenchment years — tens of billions of dollars in reductions after an increase of nearly \$100 billion in the second half of the 1990s.

Why did this rapid growth occur? Who pulled the plug and why? What impact will it have on the U.S. and even the global economy? What are the implications for the telecom sector?

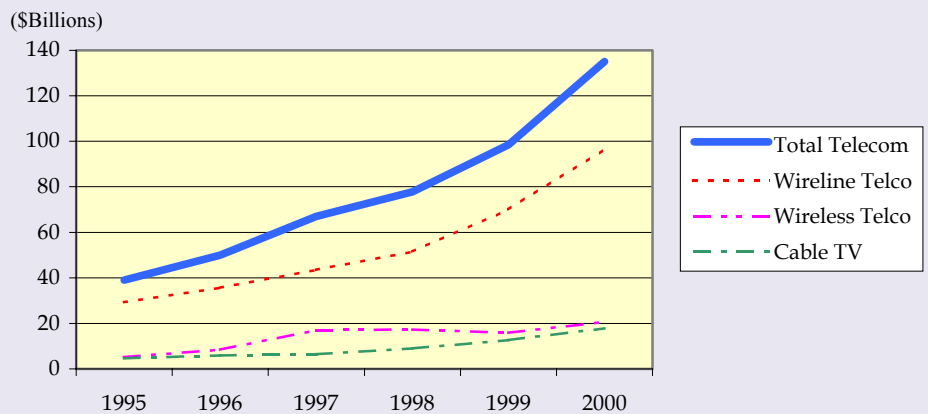
Rapid Growth

The last six years of the decade (1995-2000) witnessed a "Capital Spending Storm" which touched every sub-sector of the telecom industry including wireline, cable TV and wireless.

Compound annual growth rate (CAGR) between 1996 and 2000 was 24%. Investment increased almost 3.5 times between 1995 and 2000 from \$39 billion to \$136 billion. In the last two years alone investment growth almost doubled, an astounding 35% CAGR.

This rapid growth was accompanied by a tremendous increase in telecom stock valuations. Between 12/96 and 12/99, the AMEX North American Telecom Index grew at 56% CAGR.

Figure 1: US Telecommunication Capital Investment (1995-2000)



(\$Billions)	1995	1996	1997	1998	1999	2000
Total Telecom	39	50	67	78	99	135
Wireline Telco	29	36	44	52	70	97
Wireless Telco	5	8	17	17	16	21
Cable TV	5	6	6	9	13	18

Source: Credit Suisse First Boston Technology Group, Company reports, FCC, Cellular Telecommunications Industry Association, Company reports, Marconi Pacific Analysis

Why did this rapid growth occur?

The vast availability of capital is the overarching reason that the rapid growth in telecom investment occurred. Public and private investors were eager to pour billions of dollars into the capital-intensive telecom sector, even more so than into other industries. There were several reasons for this "Capital Spending Storm": 1) Telecom deregulation, 2) Fiber optics, 3) Internet growth, and 4) Wireless.

1. Telecom Deregulation

As stated by the FCC, the goal of the Telecom Act of 1996 was “to let anyone enter any communications business -- to let any communications business compete in any market against any other.” This act created the CLEC industry, which grew from zero to contribute nearly \$9 billion in capital investment at its peak in 2000. The open competition provisions of the Act spurred incumbents and new entrants alike to race to sign up customers, deploy state-of-the-art technology and build new capacity

2. Fiber Optics

The seemingly limitless growth of the Internet and data applications led to the construction of several (often redundant) fiber optic networks. For the first time separate telecom companies, rather than the carriers themselves, built capacity on spec. These new carriers include Level 3, Qwest, Global Crossing, Williams, and 360 Networks. Together these five companies accounted for an astounding 34% of the overall growth in telecom Capex from 1998 to 2000.

The Fall

The telecom sector has been hit hard this year. The AMEX North American Telecom Index has dropped 40%, and several CLECs, ISPs and international LD companies have filed for bankruptcy. Capital spending also began a steep decline. Marconi Pacific estimates telecom capital investment will drop 14% in 2001 and an additional 21% in 2002, compared to an increase of 37% in the prior two-year period, 1998-2000 (see Figure 2 and 3). CLECs and ISPs will experience a projected drop in capital spending of more than 50% between 2000 and 2002; but the largest absolute drop comes from the fiber network carriers. Together Level 3, Qwest, Global Crossing, Williams and 360 Networks will account for nearly one-half of the drop in spending in 2001.

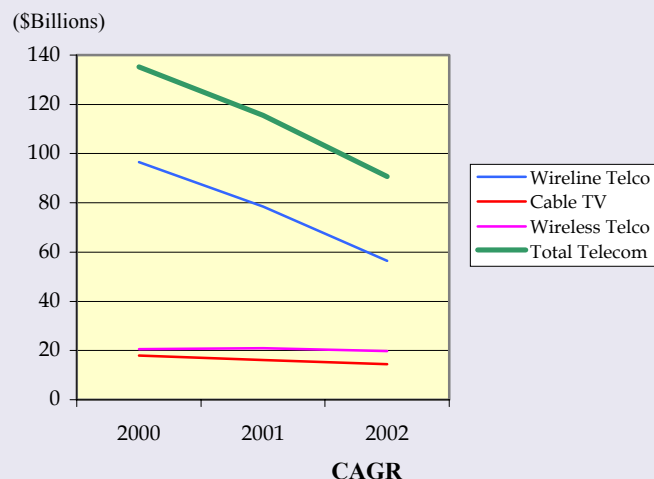
3. Internet Growth

The growth in the Internet has been well documented – the number of US Internet users has grown from 18 million in 1995 to 166 million today. Telecom networks have needed to accommodate this increase in traffic. In addition to investment to increase backbone capacity, local networks have been upgraded to accommodate additional lines, DSL and cable modem technology.

4. Growth In Wireless

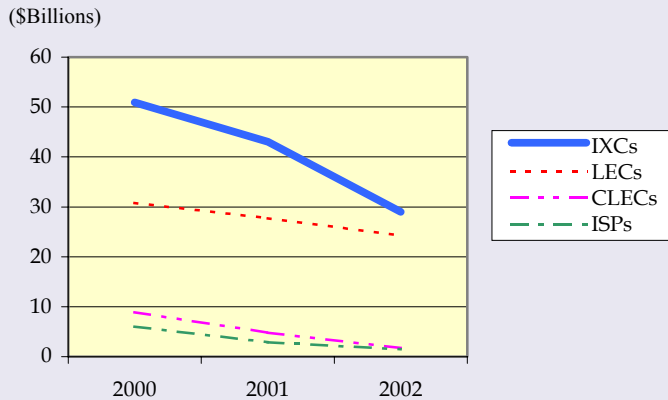
The PCS auctions in 1995 and 1996 opened up enormous new spectrum and increased competition in each wireless market area from two to at least six carriers. Each carrier had to build out a unique network appropriate to the frequency they had purchased in the auction from the FCC. In 1995, wireless had represented only 13% of all telecom capital spending. By 1997, its share of all telecom capital spending had doubled to 25%.

Figure 2: Telecom Capital Spending by Sector (2000-2002)



	1998-2000	2000-2002
Wireline	36.9%	-23.5%
Cable TV	40.8%	-10.0%
Wireless	9.2%	-2.1%
Total CAGR	31.8%	-18.1%

Figure 3: Wireline Capital Spending by Sub-sector (2000-2002)



CAGR

	1998-2000	2000-2002
IXCs	38.8%	-24.5%
LECs	21.1%	-11.2%
CLECs	71.3%	-55.6%
ISPs	139.1%	-50.1%

Who pulled the plug and why?

As 2000 came to a close, alarms started going off as investors realized that many of the businesses that were being built to participate in the telecom boom were not going to be able to reach profitability anytime soon. These suspicions were borne out in late 2000 and early 2001 when many of the new companies began missing earnings targets.

The domino effect continued as the larger incumbent players began to revise downward their financial targets. As a result, what had once been a virtuous circle of perceived opportunity changed into a rapidly tightening noose. Capital markets contracted rapidly. The boom in demand was simply not going to be as big as the industry was planning and spending for.

Telecom infrastructure that had been built essentially on spec has begun to be abandoned, leaving behind a veritable wasteland of overcapacity. With no consensus on when demand might catch up with supply, companies trimmed capital budgets.

What is the economic impact of change in telecom capital investment?

Telecom capital spending has served as one of the most critical growth catalysts in the US economy. Telecom's share of total US capital spending has doubled from 5% in 1995 to 10% in 2000. The capital invested in telecom infrastructure provided the foundation upon which "new economy" companies as diverse as Qwest, AOL, Teligent, Aether, Webvan, and the Amazon were built on.

While claims of a "new economy" turned out to be greatly exaggerated, the US economy has become more of an information-based economy that move its information on telecommunication networks. As a result, Marconi Pacific believes that the financial performance of the telecom sector will more closely follow the broader economy. And capital spending on telecom infrastructure is likely to ratchet back to a percentage only modestly higher than the traditional 5%.

Beyond the immediate shrinking of capital budgets, the telecom industry will be characterized by five trends in the near future: 1) Slower growth, 2) Consolidation, 3) Targeted investment, 4) ILEC domination, and 5) Spin-offs

1. Slow Growth

Despite the tremendous allure that it took on in the late 90s, telecom traditionally has been a slower growth industry relative to broader economic growth measures such as the S&P 500 Index. Between 12/93 and 12/96, the AMEX Telecom Index grew at 7.5% CAGR while the S&P grew at a 17% CAGR. Part of this slowdown in growth will be driven by a need to “burn-off” excess network capacity especially in the domestic and international long distance industries. For the foreseeable future, telecom is likely to return to a slower pace of growth, and most companies will return “back to basics.” Such strategies will involve rationalizing operations (Operations Excellence), focusing on lower customer acquisition costs (Marketing Excellence) and maximizing asset utilization (Capital Excellence).

2. Consolidation

The last several years have further proven that telecom is a scale-driven business. Despite billions of dollars in funding, the CLECs have not been able to approach the scale advantages of the ILECs. The industry has witnessed a wave of mergers and acquisitions (Verizon, SBC, and WorldCom to name a few), and Marconi Pacific expects the trend to continue. Continued consolidation will be driven by additional scale maximization as ILECs and LD carriers merge and as wireless carriers merge. The stronger carriers and the ILECs likely will survive and the weaker carriers and some of the LD carriers probably will not.

3. Targeted Investment

The past five years of aggressive Capex spending will be tempered by increased analysis and business case development regarding new investments. Wire line network investment will be ratcheted back to more closely match near term demand projections. Wireless investment, especially in 3G (Third Generation) networks will be undertaken with great caution.

4. ILEC Domination

Marconi Pacific sees the next decade being dominated by the ILECs (Incumbent Local Exchange Carriers). The Baby Bells, in particular have won the battle against the CLECs, and they will win against the Long Distance carriers – either through direct competition or through acquisition. Within a year of offering LD in New York, Verizon captured almost 20% of the residential market – roughly on par with established competitor MCI. The RBOCs and smaller ILECs hold the golden key in the telecom market – the final wireline connection to the customer. Until a company can find a superior method to bypass this last 1,000 foot connection (and many have failed trying), the ILECs will continue to control the customer.

5. Spin-offs.

As industry consolidation increases Marconi Pacific expects the larger companies to spin-off or sell properties. They will do this both to trim some slower growth and less profitable operations and, in times of slower growth, to raise cash. These properties are likely to include wireline rural properties. Verizon recently sold about 600,000 access lines each to Century Telephone and Alltel. SBC, Qwest and the former GTE also have shed rural properties within the last few years. We expect this trend to continue. This will provide a potentially attractive opportunity for Alltel, Citizens, CenturyTel and others to increase their rural coverage and scale of their respective businesses.