A few months ago, the CLECs seemed like high flyers. But as the real size of their potential market becomes clear, they may come down to earth.

The U.S. competitive local exchange carrier (CLEC) sector arguably has been one of the more impressive market performers over the past several years. As of March 31, 1998, the combined market cap of 10 leading independent CLECs was $13.7 billion, and that excludes the local businesses of WorldCom-MFS-Brooks Fiber, AT&T, MCI and Sprint. Since January 1, 1996, over $15 billion has been raised in financial markets for CLECs.

There are a number of reasons for this, but one key factor is the CLEC's ability to gain share rapidly at the expense of incumbent LECs (ILECs). A recent Merrill Lynch review (“CLECs: What’s Really Going On,” June 19, 1998, updated July 23) estimates that as of 1Q98, CLECs had 3.5 percent dollar share of the local telecom market, generated by achieving 1.7 percent share of access lines. By year-end, CLEC market share is expected to grow to 5.4 percent of revenues and 2.9 percent of access lines. (For a comparison between CLEC and MCI penetration rates in the first two years after their respective deregulation, see “First- versus Second-Wave Penetration Cycles”).

Beginning back in March—before the stock market as a whole started heading south—those lofty valuations started to decline. Certainly CLECs aren’t the only companies to see their market caps take a beating with the big market retreats of the summer and fall, but they do seem to have been hit harder than many others. On March 31, 1998, the S&P 500 was at 1101.75, and on September 30, 1998, was at 1017.01, down 8.3 percent in six months. On the other hand, the 10 leading independent CLECs saw their market valuations drop from $13.7 billion to $8.2 billion, down 60 percent in the same six months (see Table 1).

What happened?

While several factors contributed to this decline, there’s one issue that hits at the very core of the CLEC industry: the apparent slowing of growth. Over the past three quarters, Merrill Lynch estimates that CLECs’ quarterly growth rate in lines dropped from 47 percent to 26 percent (excluding AT&T, MCI and Sprint).

| TABLE 1  CLEC Market Capitalization Trends ($ in Millions) |
|-----------------|-----------------|
|                 | 3/31/98 | 9/21/98 |
| McLeod          | $2,611  | $1,549  |
| Intermedia      | $1,389  | $885    |
| ICG             | $1,259  | $562    |
| Winstar         | $1,480  | $798    |
| Nextlink        | $1,716  | $1,229  |
| E.spire         | $675    | $465    |
| GST             | $525    | $274    |
| REN              | $1,448  | $794    |
| Electric Lightwave | $994  | $422    |
| Teligent        | $1,617  | $1,262  |
| **Total CLEC**  | $13,714 | $8,240  |
| **Ratio**       | 60%     |         |

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might turn out far lower than many people predicted. To test the scenario, we’ve broken the overall U.S. local telecom market into relevant CLECs components (see Figure 1, p. 34). According to the latest published statistics from the FCC, in 1996 there were 155 million wireline local loop access lines in the U.S. Assuming a 5 percent annual growth rate, today there are about 171 million wireline lines.

We say “wireline” because there’s another whole argument about whether the use of cellular and PCS networks will supplant wireline for a significant number of users. We argue such a trend will eventually occur among some of the 60+ million cellular/PCS connections, but, for simplicity, deal in this article only with competition from wireline providers. However, we include high-frequency wireless broadband providers such as Teligent, Winstar, ART and WNP in our calculations, because these companies function as CLECs in the business market, trying to take customers away from existing providers. By contrast, cellular and PCS continue (at least for now) to market their service as an adjunct to traditional access connections.

Of the 171 million total wireline access lines, approximately 54 million are business lines, the primary CLEC target market. And that’s the first key point: CLECs are focusing on roughly one-third of the total local access line market.

Moreover, they’re focusing on very selected geographic territories—locations with high “tele-density”—i.e., not rural areas or even many suburban areas. According to the U.S. Census Bureau, 75 percent of the population lives in urban areas, 25 percent in rural. Assuming that people work roughly where they live, we cut the target business market from 54 million lines to 40.5 million.

The size of the CLEC market dwindles even further when we consider the architecture they’re

First- versus Second-Wave Penetration Cycles

In a recent BusinessWeek article (“Yes, Virginia, There Is Phone Competition,” 9/28/98), the FCC took note of Merrill Lynch’s estimate of the 1Q98 CLEC revenue share of 3.5 percent and pointed out that at comparable points in their respective histories (roughly 2 years), the CLECs have 2.5 times more market share than MCI enjoyed. Indeed, the Commission used this figure as evidence of how successful the 1996 Telecom Act has been at fostering competition.

In this instance, the FCC is practicing revisionist history, and its argument is understated for several reasons:

- Though MCI won the right to enter the switched long distance business in 1979, it was forced to use line-side access to Bell local switches via 7-or-more-digit local dialup numbers (which, postdivestiture, became Feature Group A). Feature Group D (trunk-side connections with 10xxx special access numbers) was not an option until after divestiture. In contrast, AT&T could use what became Feature Group C (trunk-side direct connection to toll switches and 1+ dialing without special access numbers).

- So, back in 1979, MCI didn’t have equal access, and therefore should be expected to have lower share than CLECs do today. In contrast, today’s wireline CLECs have trunk-side Feature Group B and Feature Group D access.

We concede that the current situation has one potential equivalent to MCI’s lack of equal access: the lack of true local number portability (LNP). Clearly, customers will be reluctant to switch local carriers if doing so also means they have to change their telephone number. LNP is moving forward, but much more slowly than anyone other than the incumbents had hoped.

- In 1979, it took a real act of faith for a customer to disconnect from “Ma Bell” and get phone service from a relatively unknown competitor. There was a general perception of a substantial quality difference. In contrast, today’s consumer increasingly believes that phone service is phone service, and buys on the basis of price.

In 1979, MCI was a small upstart, and it was fighting AT&T by itself. Today’s marketplace, by contrast, is much more fragmented, with service available from many players ranging from giant IXCs, like AT&T, MCI WorldCom and Sprint, to startup CLECs.

- In 1979, the U.S. capital markets were mired in a prolonged semi-bear market status. The Silicon Valley/high technology revolution had not yet begun. In contrast, the CLEC industry (at least until March 1998, which is after the period highlighted by the FCC) benefited from the historic bull market of the past five years, and the market’s love of high technology stocks and IPOs. With so much capital coming into the CLEC market, one would expect much higher penetration levels for CLECs compared with those possible for MCI in the ’70s.

We also are fascinated by the irony implicit in the FCC’s arguments. If competition is moving ahead so well, the FCC should be much more willing to approve the RBOCs’ petitions to enter long distance, on the basis that their markets are indeed open to competition. Since it has so far rejected all ILEC long-distance petitions, the FCC apparently doesn’t really believe those markets are open.

- Finally, in this article we argue that CLEC growth will be retarded by overly narrow customer and geographic focus, and we note that MCI started off in exactly the same manner. After all, MCI originally was an acronym for “Microwave Communications Inc.” and it came into being to provide high-speed private-line connections via microwave between Chicago and St. Louis.

However, it didn’t take very long for MCI to make a key transition—it would serve residential as well as business customers, and on a ubiquitous, nationwide basis. From our perspective, MCI “got it,” and expanded its denominator sufficiently to become a serious competitor to AT&T.

Ironically, now that MCI is part of MCI WorldCom, it will be interesting to see if the residential part of the equation continues.
Typically, a CLEC has a fiber ring that serves only selected high-density areas within a Metropolitan Standard Area (MSA). If we estimate 50 percent coverage within an MSA (at best), we probably would be on the high side, but even so, the market potential drops to 20–25 million lines. Unfortunately, we can’t stop there. Within the covered geographic area in an MSA, wireline CLECs don’t serve all comers—particularly if the carrier has fiber rings with high opto-electronic connection costs. Accordingly, CLECs tend to concentrate on larger buildings within their served areas.

Figure 2 lists the proportion of commercial real estate in different size categories. If we limit CLEC prospects to buildings with more than 50,000 square feet, this suggests that only half of all buildings are relevant CLEC targets. In fact, this number could be even smaller, considering that a disproportionate share of larger buildings are warehouses and factories with relatively few phones. If we loosen the requirement to 25,000 square feet, the potential coverage rises to 63 percent of buildings. To
reality-test this, look at TCG’s coverage. As of year-end 1997, TCG passed only 14,000 commercial buildings and was connected to only 5,000 of these, according to the company’s SEC filings and analyst reports. Divided into the 65 MSAs that TCG serves, this translates into 208 buildings passed per MSA and 77 building connections per MSA—clearly an extremely limited target selection. We therefore feel comfortable excluding something like 40 percent of the covered market as not being of interest to wireline CLECs, and doing so cuts the market still further, from 20 million to 12.2 million lines.

As an alternative, rather than calculating according to building size, we could think in terms of employees per location (see Figure 3). To get a range of “too-small-to-serve” companies, we’ll eliminate those with fewer than 20 employees at the low end and fewer than 99 at the high end. We thereby exclude anywhere from 27 to 55 percent of the served geographic base—or roughly the same level as with the building size test.

In summary, per Figure 1, it looks like there’s a real market potential of approximately 12.2 million business wireline access lines, out of a total of 54 million. Merrill Lynch estimates that as of 1Q98, the CLECs had 2.2 million wireline access lines. On a base of 54 million business lines that would be a market share of 4.1 percent—plenty of room for growth.

However, prospects change if those 2.2 million lines are weighed against an addressable market of only 12 million access lines. Under that scenario, the CLECs already have an 18.1 percent share, and that has important implications. Doing some simple math (Figure 4), we find that if the overall local market is experiencing 10 percent yearly line growth, and CLECs continued to grow at the 1Q98 rate of 31 percent (194 percent annual rate, compounded quarterly), CLECs would represent 129 percent of the total industry in just two years—clearly a statistical impossibility.

Lowering the CLEC quarterly growth rate to 20 percent still gives them a 64 percent share by 2000—also unlikely in competition with ILECs, AT&T, MCI and Sprint. At best, the number is probably more on the order of 5 to 10 percent quarterly, resulting in a 22 to 32 percent share by 2000. At that point, assuming that the major telecom players don’t decide to sit down and die completely, CLEC shares will probably hit their highest annual growth rate, and then growth will begin to taper off.

**Where Do They Go from Here?**

So, if the CLECs want to extend the hypergrowth of the past two years, they have two basic options:

- **Option 1**: Grow the numerator. Rather than concentrating on selling discounted POTS lines, the CLECs should sell more broadband pipes and add long distance and Internet services to increase revenue from existing customers.
- **Option 2**: Grow the denominator. Instead of focusing on 12 million addressable lines, find ways to serve more of the 170 million phone lines.

Their success with Option 2, however, may depend on three key factors:

- **ILEC Legal/Regulatory Challenges**: The ILECs claim that having to charge low prices for unbundled network elements (UNEs) amounts to an unconstitu-
tional “taking” of ILEC property. If the ILECs’ challenge fails and regulators continue to set low UNE prices, more players may choose to follow the Covad and NorthPoint UNE-based DSL strategy, which enables CLECs to target many more customers. Of course, apart from the “taking” issue, ILECs have been resourceful in finding other ways of keeping CLECs from colocating in ILEC central offices, which could continue to stymie this approach.

■ Scope of CLEC Coverage: So far the CLECs have been reluctant to extend their networks, but to attack a larger market, they need to install low-cost point-to-multipoint broadband infrastructure to locations currently off their fiber nets.

■ Equipment Costs: It remains to be seen whether fiber opto-electronics costs will drop enough that CLECs can cost-justify direct fiber hookups to smaller customers and buildings, as well as to those mentioned above, who are currently “off net.”

The CLECs may not be able to effectively exercise Option 2 for other reasons as well. For example, the size of the wireline market could shrink once rates for mobile service begin to approach wireline (initially for toll, then for local calls) and cannibalize wired telephony.

Moreover, the CLECs’ ability to gain market share also may become more difficult if/when ILECs succeed in rolling out DSL service. However, it’s far from clear whether the ILECs are serious about DSL, and Bell Atlantic’s recently announced price of $79/month for 600-kbps DSL service makes us wonder if the ILECs really can (or even want to) achieve mass penetration for these services.

While the ILECs claim they will deploy DSL widely, CLECs such as Covad appear much more committed to delivering the service. Indeed, Covad claims its DSL offering will pass over 20 million homes and small businesses by year-end 1999. Many of these will be the small businesses (<99 employees) that employ 55 percent of all workers in the U.S. And according to International Data Corporation, 49 percent of all small businesses (as well as a significant number of branch offices of large companies) have three to eight access lines. This is the sweet spot in the DSL access line market.

Conclusion
Any new company or industry has to face the limits-to-growth issue. The trick is to first recognize the reality, and then to adjust and create new opportunities. During the next year, the CLECs will try to see if new technologies—wireless local multipoint distribution service (LMDS), DSL and new optical fiber networking approaches—can fuel growth. If they succeed in broadening their addressable market, maybe those high growth rates will return. But if not, we may already have witnessed the CLECs’ “golden” years.