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The Stimulus Package and the Telecom Industry

Comments by Gerald Granovsky, senior analyst, at the Winter Committee Meeting of the National Association of Regulatory Utility Commissioners

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The American Recovery and Reinvestment Act (ARRA) is coming during a difficult time in the credit markets. So far this year, debt issuance remains sporadic, with investment-grade issuances tracking ahead of last year's pace, while high yield remains in the trough.

Many of the telecom operators likely to participate in the stimulus programs are high-yield issuers, so the availability of capital at the lower end of the rating spectrum is very important to them. There was a brief thaw in the high-yield market for telecoms this year, as Cablevision, Crown Castle and MetroPCS were able to access the market in a roughly two-week period.

This demonstrated that high-yield investors are willing to bank on companies in more-stable sectors with relatively good credit characteristics.

Moody's Investors Service

The Stimulus Package and the Telecom Industry

Who will get the money?

To us, in doing the research for this conference and trying to read the tea leaves of the summary passages of the new stimulus bill, the one thing that kept coming up was determining what the broadband provisions of the legislation would do and what they wouldn't do, from an investor's standpoint.

One part is easy: At least $7.2 billion in funding will be earmarked for the goal of enhancing the broadband competitiveness of the U.S. The table below shows the capital expenditures of telecom and cable companies rated by Moody's over the most recent 12 months, ended September 30, 2008. As you can see, the stimulus funds make up a substantial portion of capex for many of the companies likely to participate.

U.S. Telecom Industry: Capital Spending

Segment	Capital Spending
Wireline Companies*	$30 billion
Wireless-Services Companies	$15 billion
Cable Companies	$15 billion

**AT&T and Verizon account for $25 billion of the total $30 billion. All amounts listed in this table are for the 12 months ended Sept. 30, 2008.*

The allocation of the money will be split between $4.7 billion to the National Telecommunications and Information Administration (NTIA), and $2.5 billion to the Rural Utilities Service (RUS) arm of the Department of Agriculture.

NTIA funds likely will go to a broader range of participants, including wireline, wireless and cable companies, while the RUS funding is more likely to be used by rural wireline telcos and satellite providers. In addition, we believe that up to $59 billion of total funds will be available to revamp the electric grid, foster new information technology in the healthcare industry and modernize public schools. As much of this ancillary stimulus spending will involve greater investments in information technologies, it will require greater broadband access and possibly more telephone lines. The stimulus funds will be available through September 30, 2010.

The funds administered by NTIA will be directed to build out unserved and underserved areas, which is a distinction between areas not having any high-speed-Internet access at all versus areas that have insufficient high-speed-Internet access ("insufficient" is definitionally vague).

The funds administered by the RUS will be largely directed to build out unserved rural areas. Another difference between NTIA and RUS programs is that NTIA will disburse funds as grants, while RUS will use a combination of grants, loans and loan guarantees.

The hard part, from the investors' side, is determining who will get the money, how they will receive it, and how they will spend it. And from the drafters' and people in this room's side, the hard part is to guess how effective the spending will be in accomplishing the stated broadband goals and whether it will provide an immediate economic stimulus.

Blair (Levin)[1] pointed out today and has been for a while now, and I believe that his full message had not been picked up in the mainstream press yet, that this is the first part of a much bigger overall national broadband strategy, and likely more initiatives are under way, because the current bill does not fully address the digital divide issue. The investors, on the other hand, also have their own misgivings if that divide can ever be effectively bridged.

The private investors and operators will likely embrace the stimulus program if they can suspend traditional investment-return parameters on the stimulus spending and can direct capital toward technologies that are naturally more effective in targeting specific unserved and underserved areas.

[1] Blair Levin is a managing director at Stifel Nicolaus and served on President Barack Obama's transition team for technology and telecommunications issues.

It's also important to recognize that broadband parity is not the same thing as the ideal that gave birth to the Universal Service Fund (USF) for old-fashioned telephone service. USF worked well for voice, as the service is fairly commoditized. But, how do we realistically differentiate 1 megabit-per-second (Mbps) broadband service from 10 Mbps service in attaining parity? We do not see a major difference in the end-user experience right now, as most applications are still written for the sub-1-Mbps speeds.

Compounding the uncertainty of the ARRA is the still-undefined basic concept of "what is broadband?" This illustrates the difficulty that the administration and the industry will have in setting minimum broadband standards, as the companies expand the broadband reach. As such, the stimulus act includes a mandate for the Federal Communications Commission and the NTIA to come up with a national broadband strategy within a year, which may undermine some of the buildout projects, as they'll likely commence before a formal broadband plan is finalized.

What drives broadband adoption?

For us, there's no question bigger than the basic Big Question of the broadband stimulus and its corollary: What drives broadband adoptability, and do we have a chicken and egg dilemma on our hands of what comes first—PC penetration, or high-speed-data availability?

The wireline broadband providers, subject to regulations and also importantly to the capital markets, have the capacity to build out high-speed-Internet capability to roughly 90% of all U.S. homes, using historical return-on-investment parameters. We get this number by polling the rural operators we cover, along with noting the terminal broadband coverage agreed upon by FairPoint and the three New England states. Some telcos' DSL addressability is still below that 90%, but over time, they should get there, in line with historical return-on-investment parameters.

A typical ILEC's broadband coverage is along the lines of the table below. Our research shows that it gets increasingly more expensive to cover that last 10%, with costs increasing exponentially as you get closer to 100% coverage. Some cable operators have nearly 100% broadband addressability in their plant right now, but that plant doesn't cover 100% of the franchise areas. So, roughly, we believe that 10 to 11 million households live in areas that are unlikely to be served by wireline high-speed data, at this moment.

Incumbent Local-Exchange Carriers: Typical Digital-Subscriber-Line Coverage

Population Coverage	Speed
80% to 90%	1 to 3 Mbps
50% to 60%	3 to 6 Mbps
10% to 15%	12 to 25 Mbps

Note: Mbps is megabit per second.

Hypothetically, satellite broadband offered by WildBlue and HughesNet is available to nearly all households in the 48 mainland states. Granted, broadband satellite service costs about twice as much on a monthly basis, at $60, versus traditional DSL, but the satellite infrastructure is already in place. The estimated marginal cost of connecting an additional subscriber is about $500 versus the $2,200 hypothetical cost of connecting by a newly wired plant.

Wireless broadband also has the potential to quickly add high-speed-data capabilities to hard-to-reach areas. In fact, the FCC counts wireless 3G subscribers in its high-speed-Internet reports. However, under currently deployed wireless technologies, I think everyone recognizes the major distinction between high-speed and high-bandwidth, in that even under the advertised 2 Mbps speeds of 3G wireless services, most wireless operators would be hard-pressed to deliver the same user-experience that you would get from your wireline connection.

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In addition, we have not seen provisions allowing for faster approvals for tower sitings in the stimulus bill, nor the solutions to the intramural fights among competing carriers and utilities regarding pole attachments, which are usually the critical final elements to increasing broadband coverage and speed.

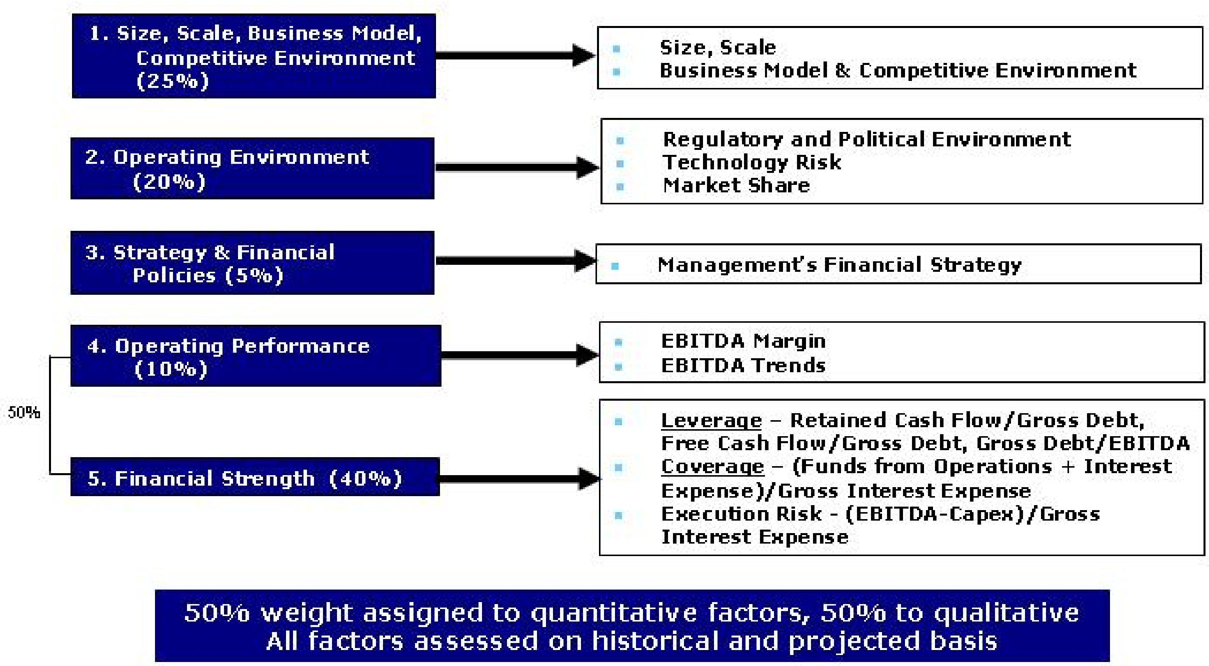
The stimulus act is also silent on critical issues to broadband-service providers, including the issue of who will bear the monthly costs of providing broadband access to the currently unserved areas. A USF-type mechanism to support the high monthly cost of providing broadband service to the hard-to-reach areas could be used, but currently broadband reimbursement is not provisioned through USF.

What are the rating implications?

The reason that I have been highlighting returns on investment is the table below, which is a snapshot of our ratings methodology for telecommunications companies.

Our rating system is not too different from what investors look at when they gauge a company's financial prospects. As you can see, 50% of the methodology-derived score is based on profitability measures. Thus, pursuing unprofitable builds has an inverse effect on ratings, as further broadband deployment into less-populated areas will not generate positive returns for the operators.

Global Telecom Industry Ratings Drivers



What is the demand for broadband service?

Getting back to answering the original Big Question, we find a disconnect between a target 90% U.S. broadband addressability, the roughly 80% computer penetration in the U.S., and a 68% broadband penetration of all households. That indicates that in addition to availability of broadband come the questions of the need and desire to subscribe by many consumers.

While many people focus on the reports of the U.S. falling behind other countries in supplying broadband, it's also instructive to see what other countries are doing in increasing their home-computer ownership. For example, India recently announced plans to send $20 laptops to its outlying regions, while sub-$300 netbooks are becoming large sellers for PC manufacturers all over the world. Recognizing this dynamic early on, Frontier Communications offered free PCs to new DSL subscribers two years ago.

But, even if homes own a PC, do they want broadband? A silly question to many of us in this room. Still, according to a recent study conducted by the Pew Internet & American Life Project, 62% of non-broadband users indicated that they are not interested in giving up their current connection. When asked what would get them to upgrade to broadband, 35% cited price as the primary reason. Interestingly, in trying to pinpoint the desires of unserved customers, 14% of all dial-up users would switch if broadband became available—but that number was significantly higher—24%—if counting only rural subscribers.

So the data do show that there is unmet demand from a segment of the population that doesn't have broadband, but it appears that the number may not be as high as many optimistic proponents claim. It is indisputable that broadband adoption correlates greatly to age, race, income and location, with young, wealthy, white, urban dwellers being the highest users of broadband access. So, from a public-policy perspective, it's a no-brainer to try to balance things out.

Broadband Penetration	
U.S. Computer Penetration	80%
Broadband Availability	90%
Internet Users per Capita	73%
Broadband Penetration per Household	68%

Can a portion of the stimulus goals be financed privately?

Of the funding sources, loans will be the least-likely avenue of funding to be accepted by the telecom operators, as it's hard to see how investment returns on extending broadband to unserved areas will meet the repayment conditions for the loans. In addition, we believe that directing stimulus funds to generate more competition in unserved areas will meet resistance from the operators, as it is hard enough for the operators to justify the buildouts to unserved areas with no other competitors. Even if the areas are built out with broadband, a much-lower computer penetration in rural households translates to fewer potential subscribers.

The telcos also need certainty that their ability to pay dividends will be unaffected by participating in the stimulus plan. For example, a provision in the act deals with "unjust enrichment as a result of support for non-recurring costs through another Federal program," which could mean that operators' receipt of USF funds may be scrutinized. As the companies' capital budgets and cash flows are consolidated, it may be cumbersome to keep the flow of funds segregated between regular expenses and ARRA funds, or if participating in the program will require more opening up of the network than what's been codified in the '96 Telecom Act, then the participation by many operators may be lukewarm.

Also, the capital markets are unlikely to take a positive view of public-private schemes given the poor operating history of recent public-private partnerships, such as the high-profile failed municipal WiFi projects, the far lower multiple paid for the open-access spectrum in the 700 megahertz auction, and no clearing bids for the public-safety frequency spectrum in that same auction. It would have been difficult to raise private financing for these types of joint ventures even if there were no credit crunch.

Memories of misplaced capital a decade ago to fuel the bubbles among the dot-coms, Y2K and the '96 Telecom Act investments make private financing of additional telecommunications infrastructure more cumbersome. In some respect, we are still not through working off the past speculative investments in telecom, given the resurgent troubles among the CLECs' balance sheets.

We also don't think that these types of investments would be good candidates for project financing, given the low visibility of a takeout upon completion of the buildouts.

Where will the greatest return on investment come from?

Below is a listing of our current outlooks on the industry sectors that will be affected by the broadband provisions in the stimulus. Of the possible participants in the stimulus funding, we believe that rural wireline players are the most likely.

These wireline telecom players are divided into two camps: investment-grade and high-yield. The companies' operating profiles are very similar, but dividend payments and leverage are the main differentiators between the two rating classes.

Since dividend payments support the stock prices of the high-yield players, few have been willing to devote more capex into the ground if it is going to threaten the dividend. The investors' expectation of continuing high dividends supports the equity valuations of these companies. Thus, some rural telcos will definitely consider participating in the program, but only to the extent they feel comfortable in their ability to generate cash flow to pay out dividends.

I'll offer two quick examples of shareholder pressure from last year. SureWest suspended its dividend and has refocused its cash flow to fund an FTTP strategy in its incumbent phone and cable markets. The company's stock price closed approximately 17% lower on the day after its dividend-suspension announcement. Conversely, CenturyTel's stock price rose 17% when it announced a tenfold dividend increase (from 27 cents a share to $2.80 a share) in June 2008.

Even for larger lower-leveraged companies, the question in this uncertain environment comes down to where will the greatest return on investment come from? Thus, as AT&T announces that it is moving out a portion of its U-Verse build by one year, and pares 10% to 15% of capex in '09, we doubt that the capex slowdown is being equally shared across all of its business lines, and that its wireless division is unlikely to have its capex budget cut at the same level.

Industry Sector Outlooks: North American Telecom Industry

Industry	Outlook
Diversified Telecom Industry (RBOCs)	Stable
Incumbent Local-Exchange Carrier Industry	Stable
Wireless-Services Industry	Stable
Competitive Local-Exchange Carrier Industry	Negative
Cable Industry	Positive

What are the unintended consequences?

A fundamental building block of making the buildout decisions is recognizing that Internet and broadband technologies are leapfrogging, and that's why the U.S. is falling behind in international broadband rankings, as some of the other countries' buildouts are newer.

So how much of a difference does much-higher speed make? That question is critical, as we believe that it was a good thing that Congress removed the speed mandates from the bill, because residential speeds of over 50 Mbps are unlikely to be net stimulative in the near term, and would likely only benefit Verizon and perhaps Comcast.

At the basic level, the difference between dial-up Internet and 1 Mbps speed is of a much greater magnitude to drive productivity improvements and personal enjoyment of the Internet, than moving from 1 Mbps to 10 Mbps. You can do a quick survey of your own usage; chances are that in your offices, the data connection is maxed out at 1.5 Mbps, yet the service is still robust enough to do your work and it's light speed over what you could do 15 years ago.

As you move up the value chain of broadband, the Field of Dreams theory dictates that if you build it, the applications will come. Yet, that is part of a much longer-term policy question for broadband addressability, and its impact on job creation and increasing productivity is still subject to plenty of debate among the academics.

We should also not ignore the big pink elephant in the room: That when people compare the Internet speeds of U.S. households with that of other countries, particularly in Asia, the utilization of that speed is critical. And that a big part of that bandwidth is consumed to download video programming, much of it through unlicensed providers of U.S.-generated content.

In the traffic data that I have seen, Asia leads the world in proportion of Internet traffic that's devoted to BitTorrent files. Thus is the case of unintended consequences, which has shown that in the near term, as speeds rise, most of the applications taking advantage of that speed are used to transport media and other trademarked content files. We are not saying that valuable productive applications won't come into the marketplace to take advantage of the higher speeds, but in the short term, the use of the very high bandwidth speeds will likely be used to diminish the value of other U.S. businesses, particularly in the media, entertainment and publishing industries.

In many respects, as the growth of the Internet has been likened to the building of railroads and highways across the U.S., another analogy to the railroad industry is apt. While the national highway system ushered in great advancements in productivity, we also endured a massive financial calamity in the aftermath of the collapse of the railroad industry in the 1960s. The implications are that while greater investments in broadband infrastructure will likely be more stimulative to GDP growth in the long run, the highly disruptive nature of the Internet will destroy a lot of investor value in existing enterprises in the short term.

For instance, we have seen a consistent downward migration of many companies' ratings in the publishing and media industries, which are strongly affected by the Internet's force.

Will it create jobs?

The last question and probably the most critical to all of you is this: Will the stimulus provide jobs?

I have seen various estimates ranging from 300,000 to 500,000 jobs to be created through the broadband stimulus. I think it's very hard to pinpoint the exact number of jobs to be created by the broadband provisions of this act, as the spending will be largely devoted to more-rural, less-densely populated areas.

According to our research affiliate, Moody's Economy.com, a total of 4 million jobs will be created or saved by the stimulus, with the largest number represented in the construction and retail trades. Thus, the obvious near-term direct beneficiaries will be the construction crews laying the new fiber, copper and antennas. But that employment will last only through the construction cycle.

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More telling is that the U.S. telcos and tech firms laid off about 190,000 employees in 2008, with another 30,000 job cuts announced so far in 2009. Given the continuing economic weakness and the ongoing competitive pressures, more near-term layoffs are very likely across all levels of the telcos' operations.

If anything, improving technology and broadband allows companies to boost productivity, which again is a negative for near-term job creation. We can also argue that the regions most likely to benefit from the stimulus spending on job creation and retention are the highly densely populated metropolitan areas, which already have very high broadband availability.

We don't believe that cable and CLECs would gain a lot from the direct broadband provisions of the stimulus bill, but we think that a net longer-term boost would come to them from the healthcare and education funding provisions. As these institutions upgrade their technology infrastructure, they will require much greater broadband capacity, and these are the industry segments that have specifically been targeted by cable companies and CLECs.

Moody's Related Research

Industry Outlooks:

- U.S. Incumbent Local-Exchange Carriers: Six-Month Update, February 2009 (114997)
- U.S. Incumbent Local-Exchange Carriers, August 2008 (110728)
- U.S. and Canada: Diversified Telecom: Six-Month Update, February 2009 (110622)
- U.S. and Canada: Diversified Telecom, August 2008 (110622)
- U.S. Competitive Local-Exchange Carriers: Six-Month Update, February 2009 (114827)
- U.S. Competitive Local-Exchange Carriers, August 2008 (110730)
- U.S. and Canada: Wireless-Services Industry: Six-Month Update, February 2009 (114837)
- U.S. and Canada: Wireless-Services Industry, August 2008 (107808)

Special Comments:

- U.S. Competitive Carriers Could Feel Brunt of a Recession, February 2008 (107473)

Rating Methodology:

- Global Telecommunications Industry, December 2007 (106465)

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