The Sunday Brief: The Donut is Under Assault
4 November 2012

Greetings from Dallas where we and the nation watched our worst fears unfold before our very eyes as Hurricane Sandy wreaked havoc on the Northeast. Having grown up in Reading (PA) and spent many summers on the Jersey shore and Rehoboth and Bethany beaches in Delaware, the memories of pristine beaches and crowded boardwalks are still very vivid. Those memories are now set against the picture to the left – sand everywhere (this is Route 1 in Delaware. Crews have removed more than 1.8 million 50 lb. bags of sand to clear Route 1 alone). Our thoughts and prayers are with the millions who try to put their lives in order after a horrible week.

With several key earnings reports moved as a result of Sandy, and with AT&T's Analyst Day coming up on Nov 7, we thought we would take some time to set up the broadband equation this week and reinforce these themes when results are released next week.

We have had several hundred new readers to The Sunday Brief in the past three months, and some of you might have thought that the SB was focused solely on wireless. While there are a lot of dynamics affecting the wireless world (especially in the handset and tablet markets as we enter the Holiday season), these events would not be possible without the robust construction of broadband infrastructure over the past decade. Without fiber and microwave backbones, there would be no 4G, no LTE, no 5.0 GHz Wi-Fi, no Netflix/ Hulu/ WatchESPN, no Xbox Live. At the SB, we love wireline and infrastructure because it enables so much. And, despite perceptions to the contrary, it's full of action.

Turning up homes and businesses with broadband speeds does not occur overnight. Nor is it cheap. Verizon is estimated to have spent in excess of $23 billion over seven years to make FiOS a reality. Over half of that expense was simply to lay fiber. In the case of FiOS, that means fiber to the home. For Comcast, Time Warner Cable and others, it means fiber investments to a network node, and a combination of fiber and coaxial cable to the home. For Zayo and other core network infrastructure providers, it means billions of dollars per year to connect existing metropolitan rings to cell sites. These are long-term (20-30 yr useful life) investments – big bets in an industry that is not shy about its willingness to take risks.

Against this backdrop, we look at a segment of the market called "Wireline Connectivity." This includes all infrastructure to the home, office, and wireless tower. Simply put, it's the plant and equipment that enables information to get from one source to another, whether that's a real time event (e.g., a phone call or video session) or a multi-gigabyte Windows 8 upgrade.

Connectivity is the primary source of wireline service provider revenue and profit growth. Take Comcast, for example. Here's a quick snapshot of their subscriber growth over the past five years:

Cable Communications Segment

The table below summarizes certain customer and penetration data for our cable operations.

December 31 (in millions)	3Q 2012	2011	2010	2009	2008	2007
Homes and businesses passed[a]		**52.5**	51.9	51.2	50.6	48.5
Video						
Video customers[b]	22.0	**22.3**	22.8	23.6	24.2	24.1
Video penetration[c]	41.5%	**42.5%**	43.9%	46.0%	47.8%	49.6%
Digital video customers[d]	21.1	**20.6**	19.7	18.4	17.0	15.2
Digital video penetration[d]	95.7%	**92.0%**	86.6%	78.2%	70.3%	63.1%
High-speed Internet						
High-speed Internet customers	19.0	**18.1**	17.0	15.9	14.9	13.2
High-speed Internet penetration[c]	35.9%	**34.5%**	32.7%	31.1%	29.5%	27.3%
Voice						
Voice customers	9.8	**9.3**	8.6	7.6	6.5	4.6
Voice penetration[c]	18.5%	**17.8%**	16.6%	14.9%	12.8%	9.5%

Source: Comcast 2011 10-K; Comcast 3Q earnings trending schedules

With the exception of video, Comcast's cable operations have been in strong growth mode over the past 5.75 years. In 2007, High Speed Internet was a $6.4 billion business generating 90+% gross margins. In 2012 (using the first three quarters of actual and an estimate of 4Q 2012), it'll be a $9.6 billion business generating 90+% gross margins. Take out a healthy amount of allocated service costs, and you have $2+ billion of incremental cash flow to invest in additional infrastructure, technology, and new lines of business. To use the BCG Growth Share matrix examples, High Speed Internet is one of those businesses that is a high growth "star" and a "cash cow" at the same time.

Where are cable companies putting the cash flow from High Speed Internet? What isn't going back to the shareholder is going back into capital. Here's Comcast's quarterly capital statement for the last eleven quarters:

Consolidated Capital Expenditures

($ in millions; unaudited)

	2010				2011				2012		
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
Cable Communications Growth Capital[1]											
Customer Premise Equipment (CPE)[2]	$518	$566	$675	$692	$544	$568	$589	$498	$560	$500	$607
Network Infrastructure[3]	$46	$65	$82	$100	$53	$72	$78	$83	$51	$68	$79
Support Capital[4]	$32	$41	$56	$77	$20	$24	$34	$57	$16	$33	$44
Business Services[5]	$97	$109	$128	$162	$152	$153	$147	$155	$146	$162	$185
Total Cable Communications Growth Capital	$693	$781	$941	$1,031	$769	$817	$848	$793	$773	$763	$915
Cable Communications Maintenance Capital[1]											
CPE[2]	$57	$71	$74	$62	$65	$64	$63	$51	$67	$53	$70
Network Infrastructure[3]	$121	$202	$226	$305	$161	$230	$245	$302	$163	$233	$282
Support Capital[4]	$22	$28	$44	$67	$39	$46	$69	$123	$31	$62	$81
Total Cable Communications Maintenance Capital	$200	$301	$344	$434	$265	$340	$377	$476	$261	$348	$433
Cable Communications Strategic/Discretionary Capital[1]	$20	$37	$32	$39	$19	$24	$29	$49	$22	$13	$16
Total Cable Communications Capital Expenditures	$913	$1,119	$1,317	$1,504	$1,053	$1,181	$1,254	$1,318	$1,056	$1,124	$1,364
Percent of Total Cable Communications Revenue	10.6%	12.7%	14.8%	16.6%	11.6%	12.6%	13.4%	13.9%	11.0%	11.4%	13.7%
Total NBCUniversal Capital Expenditures	$10	$12	$11	$19	$47	$84	$108	$195	$111	$156	$209
Corporate, Other and Eliminations Capital Expenditures	$2	$7	$38	$9	$6	$6	$46	$9	$7	$7	$9
Total Consolidated Capital Expenditures	**$925**	**$1,138**	**$1,366**	**$1,532**	**$1,106**	**$1,271**	**$1,408**	**$1,522**	**$1,174**	**$1,287**	**$1,582**

As this chart shows, Comcast (and the entire cable industry) continues to be aggressive in reinvesting cash back into the business. Over the past four quarters, Comcast's cable operations have generated $16 billion in operating cash flow and reinvested around 30% back into the business. These statistics reflect Comcast's scale – 40% is more common in the cable industry (Time Warner Cable, for example, invested $3.0 billion in capital expenditures for $7.5 billion in Operating Income Before Depreciation and Amortization from 2Q 2011 to 2Q 2012).

The composition of capital expenditures, however, is changing – and quickly. To take advantage of the growth of wireless data, infrastructure spending has shifted from the home to the tower. There are approximately 285,000 unique cell sites on approximately 150,000 unique cell tower structures in the US (source: CTIA, JP Morgan), and only one third of these (45,000) have any alternative to the incumbent provider. Assuming that about 30% of the remaining (105,000) towers have favorable economics, that's an additional $4 billion of invested capital remaining to fully capitalize on fiber to the tower (FTTT). All fiber to the tower investment for Comcast is included in the Business Services Capital line above.

Once fiber has been deployed into residential neighborhoods and the cell towers that serve them, why not the local corporate office park, high school or college, municipal and government buildings and even the strip mall? Being successful with corporate customers (most of whom are current or previous cable customers) requires different products, service levels, and sales cycles than the residential market. There are more competitors, and wireless/ wireline integration (not a cable strong suit) has become more important to buying decisions in certain vertical segments. Cable is coming to an office park near you with carrier-grade Ethernet. They have network scale (from serving the cell tower near the building and the neighborhood down the street), and product functionality to match most customer needs.

This turns the competitive environment for the incumbent local service provider (e.g., Verizon, AT&T, CenturyLink, Frontier, Windstream, others) up a few notches. The urban core has long had competition for selected buildings, but the assault on suburban office buildings has been confined to a few providers in a few buildings. "Give the fiber guys their fair share of the downtown (donut) hole - we'll take the suburban donut" was the way one local telephone executive put it to me several years ago.

However, thanks to cheap capital (another SB theme), fiber to the tower success, and a lack of residential new home construction, the once impenetrable donut is under assault.

This is the next battle in wireline, one driven by growth assumptions (made complicated by in-building wireless growth to boot). The cable companies and their competitive peers remember what conservative assumptions can yield – many of them missed the most lucrative tower sites because they refused to accept growth assumptions that turned out to be not only true, but low.

This week, it's not likely that you'll hear cable executives talk about assaulting the donut, but listen for operational metrics like "offices passed" (similar to homes passed), "floors (or square feet) served" and "Ethernet connections" (as opposed to traditional High Speed Internet fiber/ coax modem solutions). That's the donut, and it's full of cash flow filling.

Next week, we'll validate these trends based on Time Warner Cable, Cablevision, CenturyLink and other wireline earnings. As always, we welcome your comments and questions. If you have friends who would like to be added to this email blog, please have them drop a quick note to sundaybrief@gmail.com and we'll add them to the following week's issue. Have a terrific week!

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