Bernstein Research

January 18, 2012

U.S. Telecommunications, U.S. Cable & Satellite Broadcasting

The State of the Net: 2012

Washington, DC

January 18, 2012

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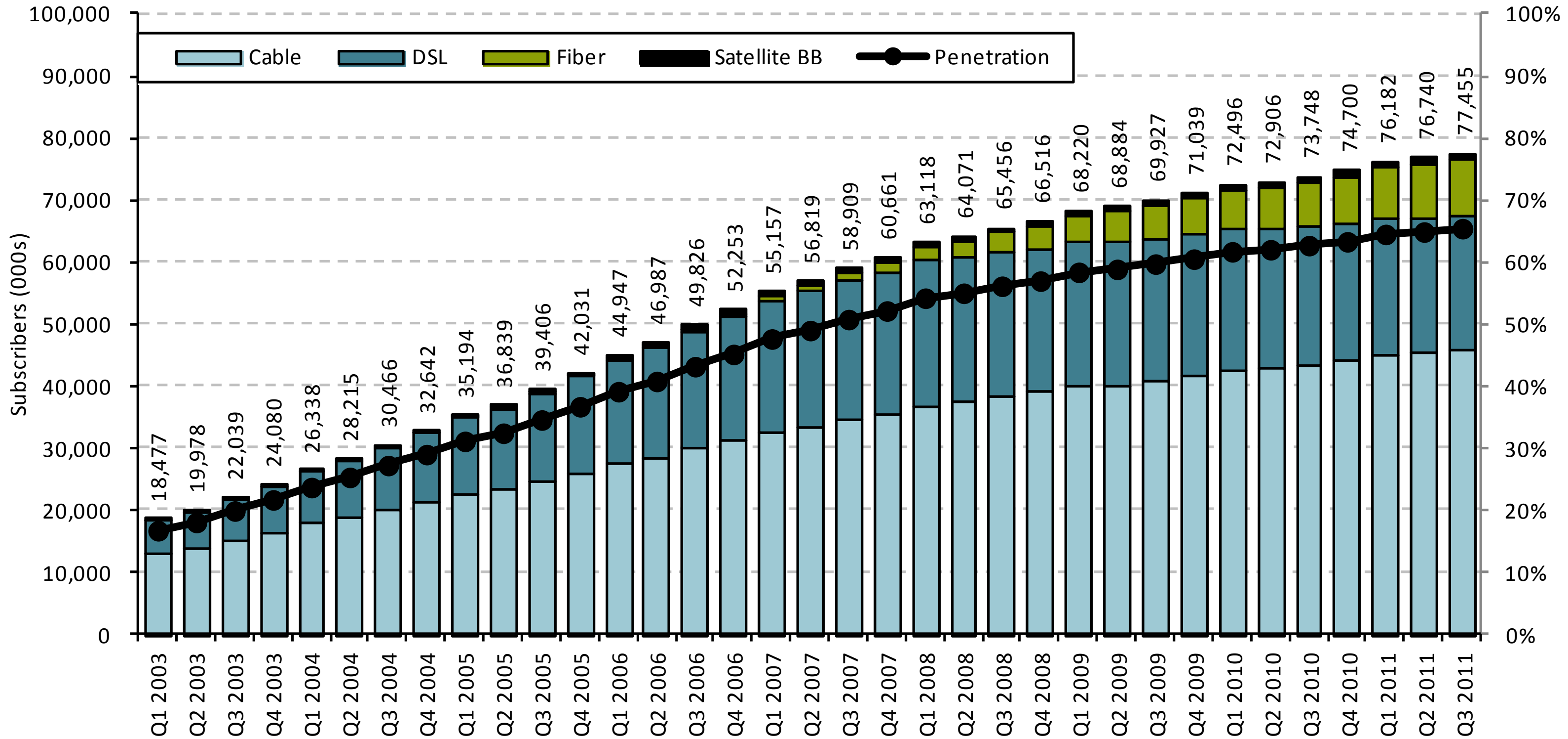
See Disclosure Appendix of this report for important Disclosures and Analyst Certifications

The State of the Infrastructure

- Internet in America: What the Data Says
- Competitive dynamics
- The TelCo Dilemma
- Returns on Capital

Penetrations Gains are Slowing at ~66% of the Market

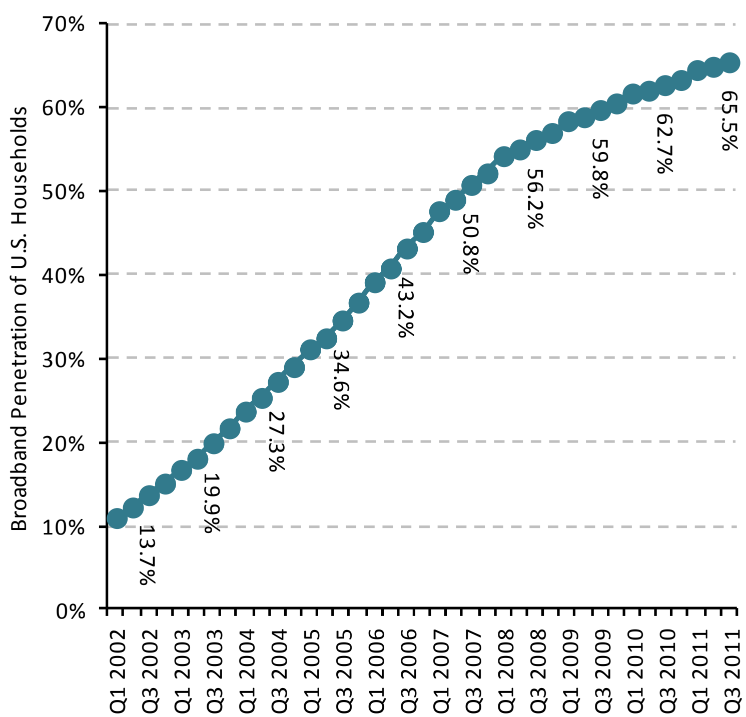
Broadband Penetration and Delivery Technology



Source: Company reports, Kagan, Bernstein estimates and analysis

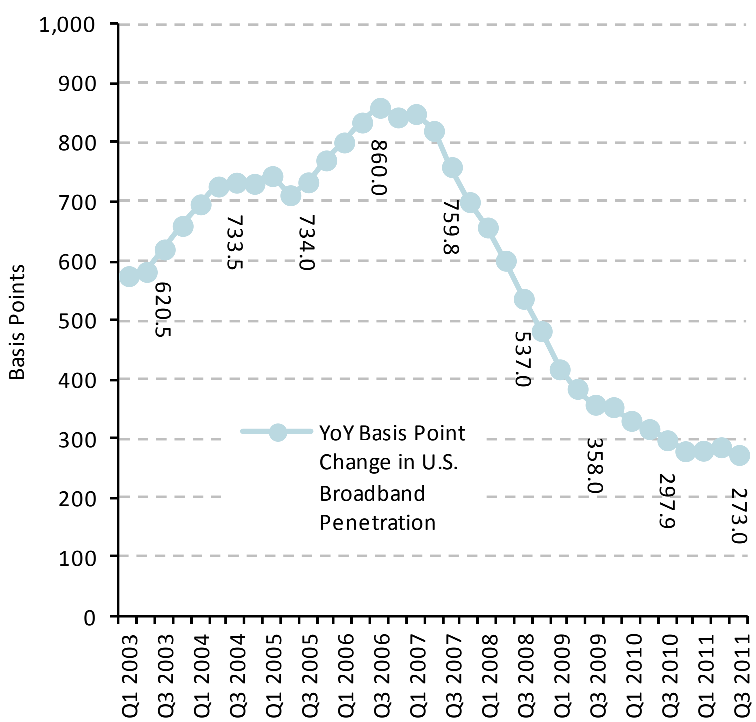
Incremental penetration dynamics suggest we are headed to ~85%

Penetration



Source: Company Reports, Bernstein Estimates and Analysis

Change in Penetration



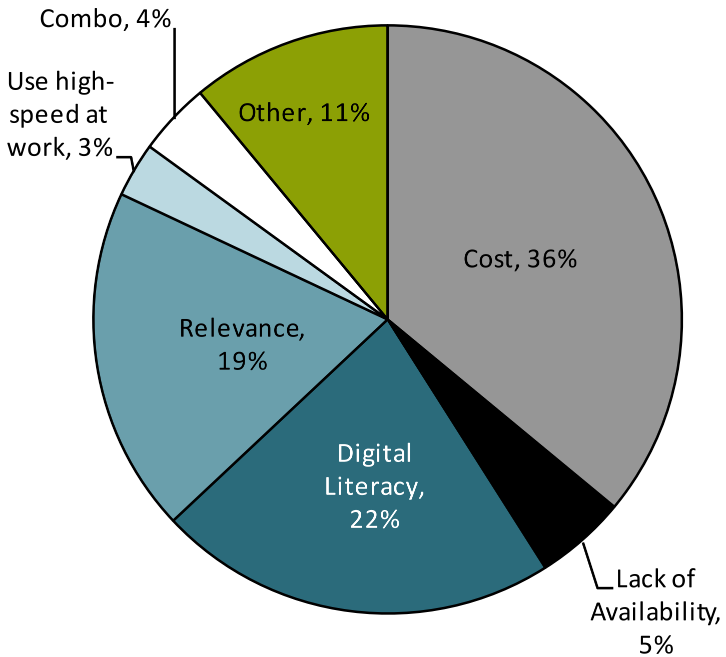
Source: Company Reports, Bernstein Estimates and Analysis

Reasons for Not Having Broadband

Reasons for Not Having Broadband 2010 (OBI)

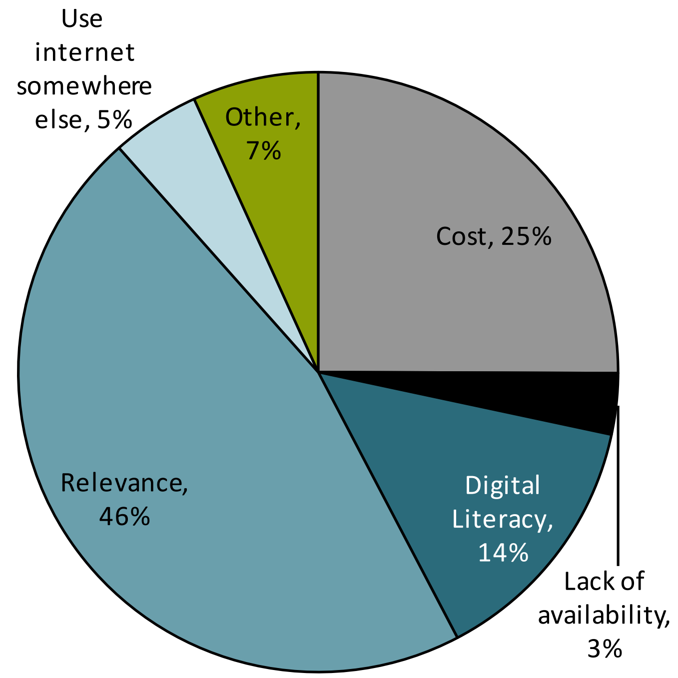
Reasons for Not Having Broadband 2011 (NTIA)

Reasons for Not Having Broadband 2010 (OBI)



Source: FCC, "Broadband Adoption and Use in America, OBI Working Paper Series No. 1." John B. Horrigan, Ph.D

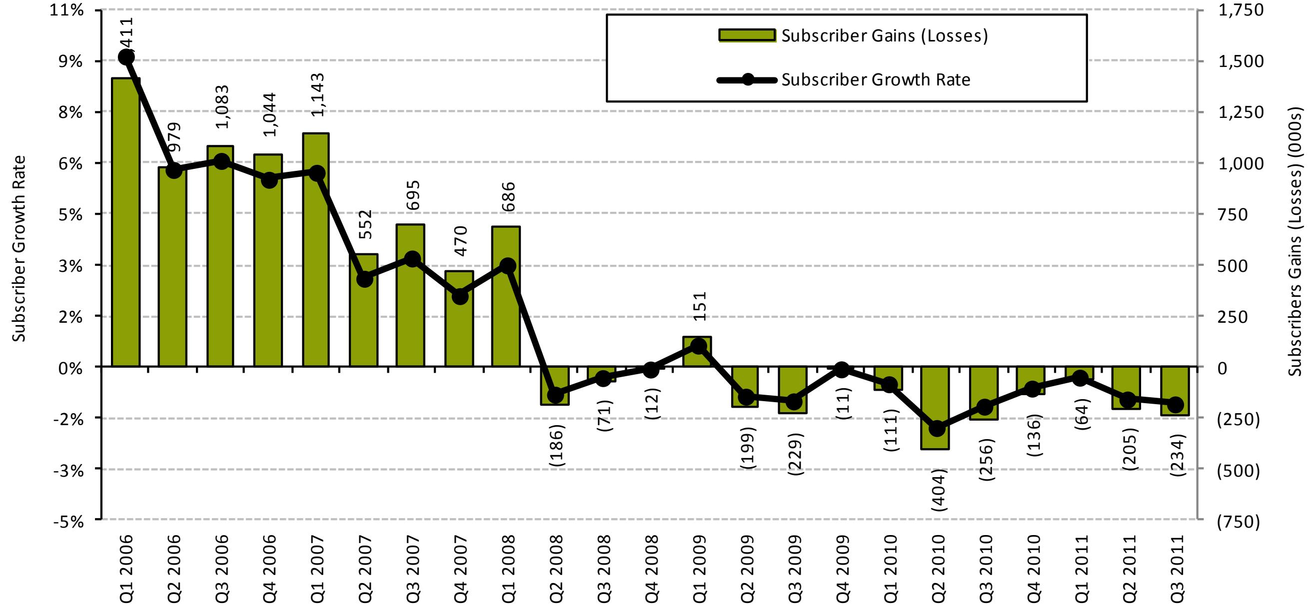
Reasons for Not Having Broadband 2011 (NTIA)



Source: "Exploring the Digital Nation - Computer and Internet Use at Home," U.S. Dept of Commerce

DSL is now in decline

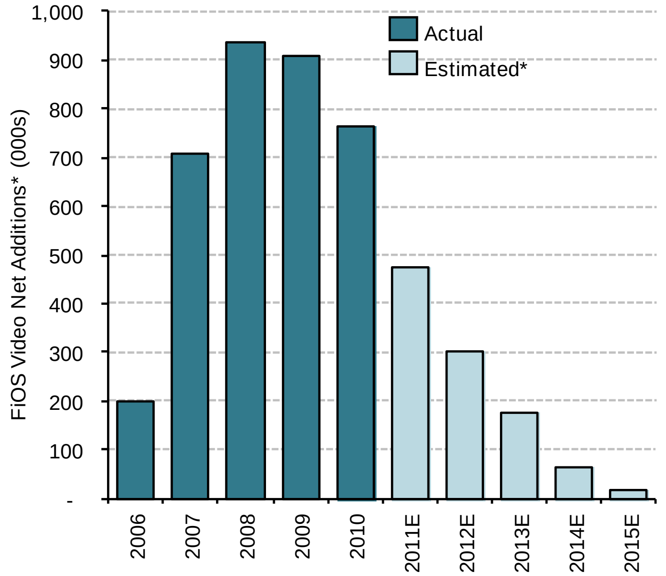
DSL Net Additions (Losses)



Source: Bernstein Analysis

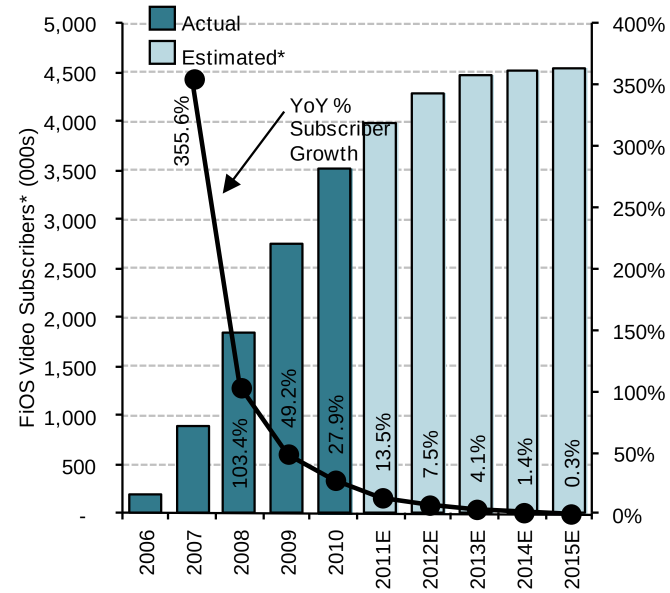
FiOS: Nearing End of Growth Cycle

FiOS: Projected Video Net Additions



*estimated based on market penetration curve estimated from 1Q 2006-3Q 2011 results; assumes 18M home passings by end of 2015 and that marketed video homes/passed homes = 90% by end of 2015
Source: Company Reports, Bernstein Estimates and Analysis

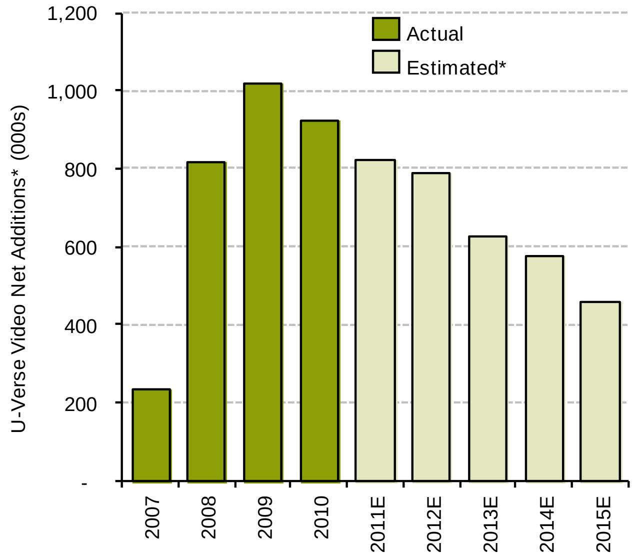
FiOS: Projected Video Subscribers and Subscriber Growth



*estimated based on market penetration curve estimated from 1Q 2006-3Q 20011results; assumes 18M home passings by end of 2015 and that marketed video homes/passed homes = 90% by end of 2015
Source: Company Reports, Bernstein Estimates and Analysis

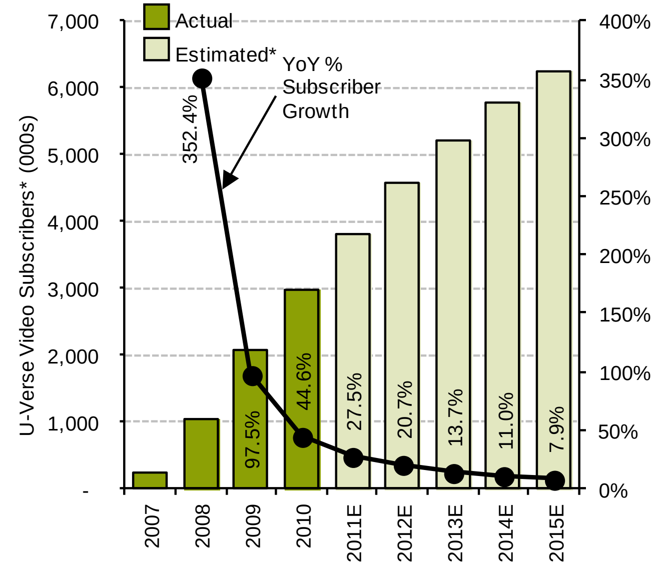
U-Verse: Nearing End of Growth Cycle

U-Verse: Projected Video Net Additions



*estimated based on market penetration curve estimated from 1Q 2007-3Q 2011 results; assumes 33M home passings by end of 2015 and that marketed homes/passed homes = 85% by end of 2014
Source: Company Reports, Bernstein Estimates and Analysis

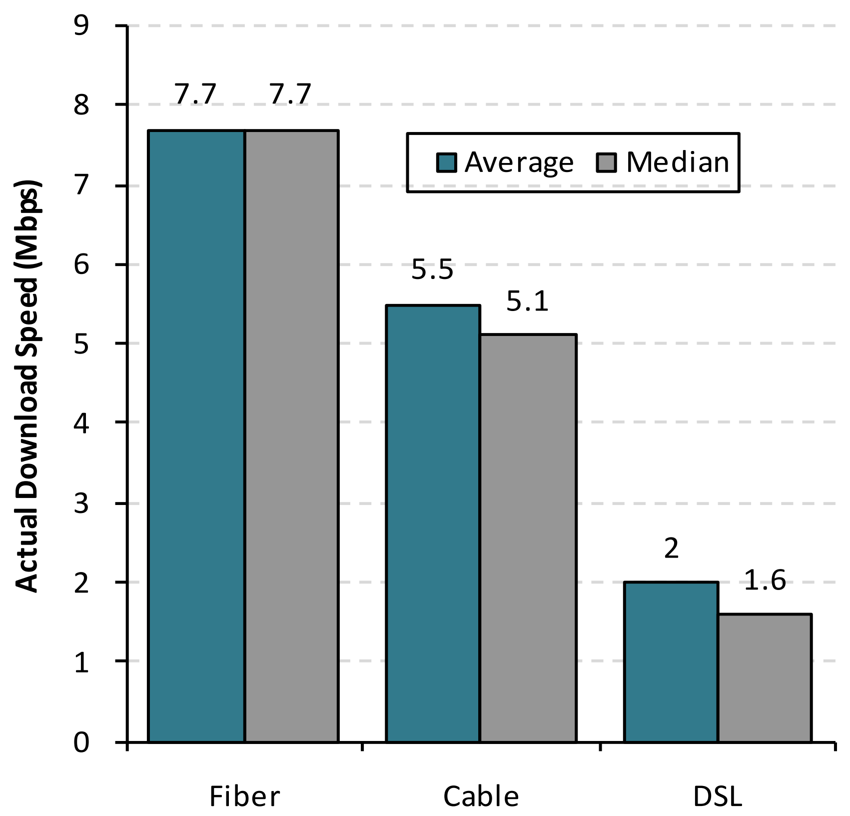
U-Verse: Projected Video Subscribers and Subscriber Growth



*estimated based on market penetration curve estimated from 1Q 2007-3Q 2011 results; assumes 33M home passings by end of 2015 and that marketed homes/passed homes = 85% by end of 2014
Source: Company Reports, Bernstein Estimates and Analysis

The Need for Speed

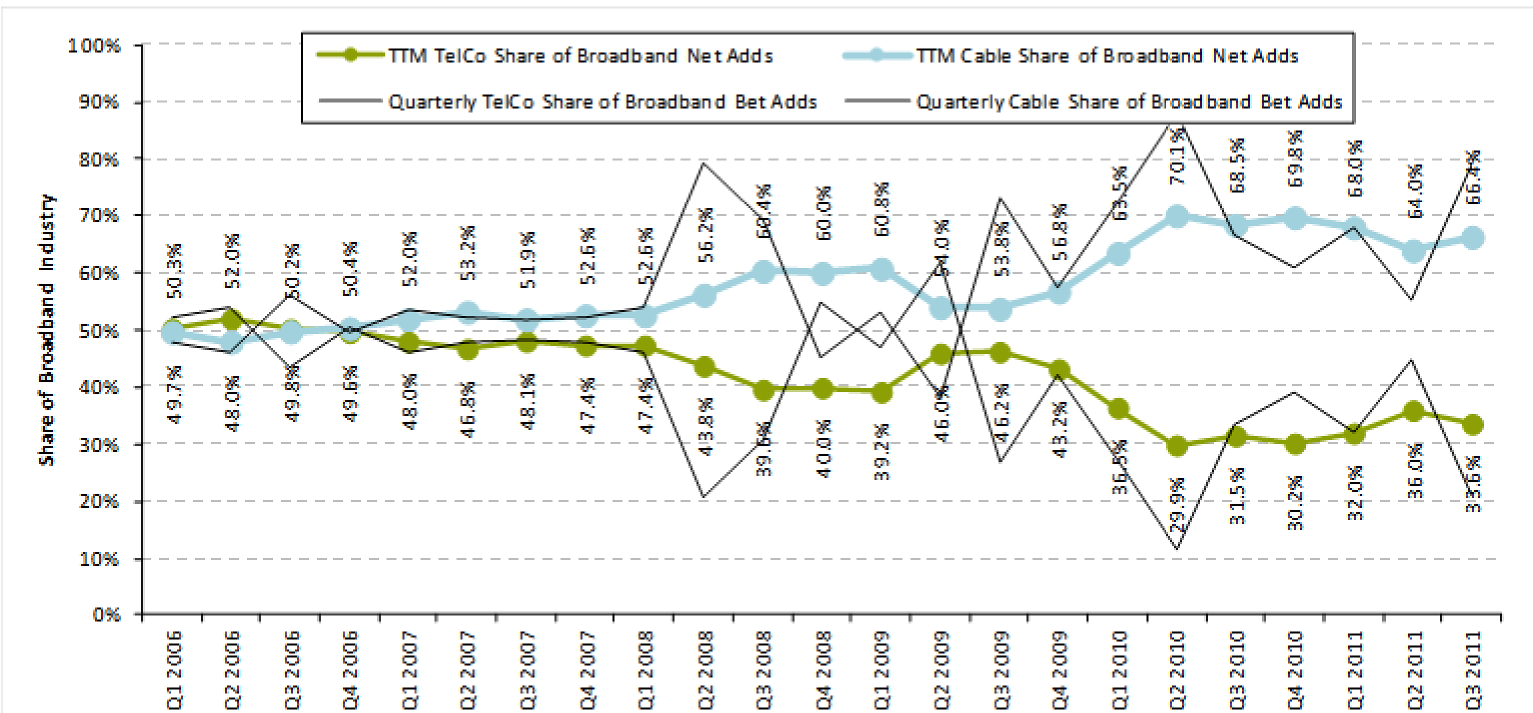
Actual (Realized) Broadband Speeds by Technology



Source: FCC, "Broadband Performance: OBI Technical Paper No. 4"

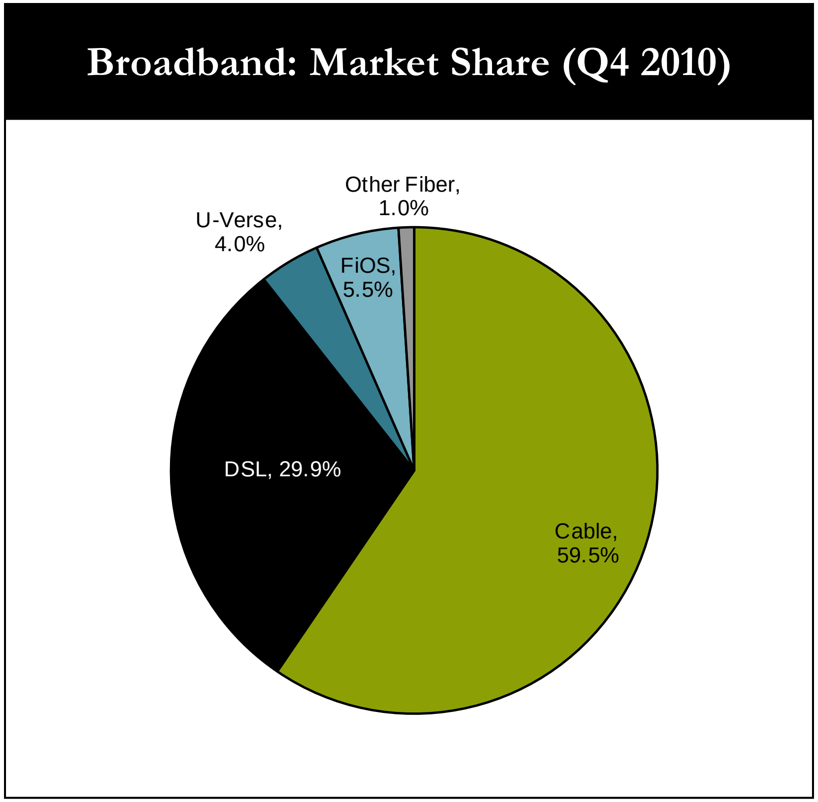
Cable is Pulling Away in the Broadband Market

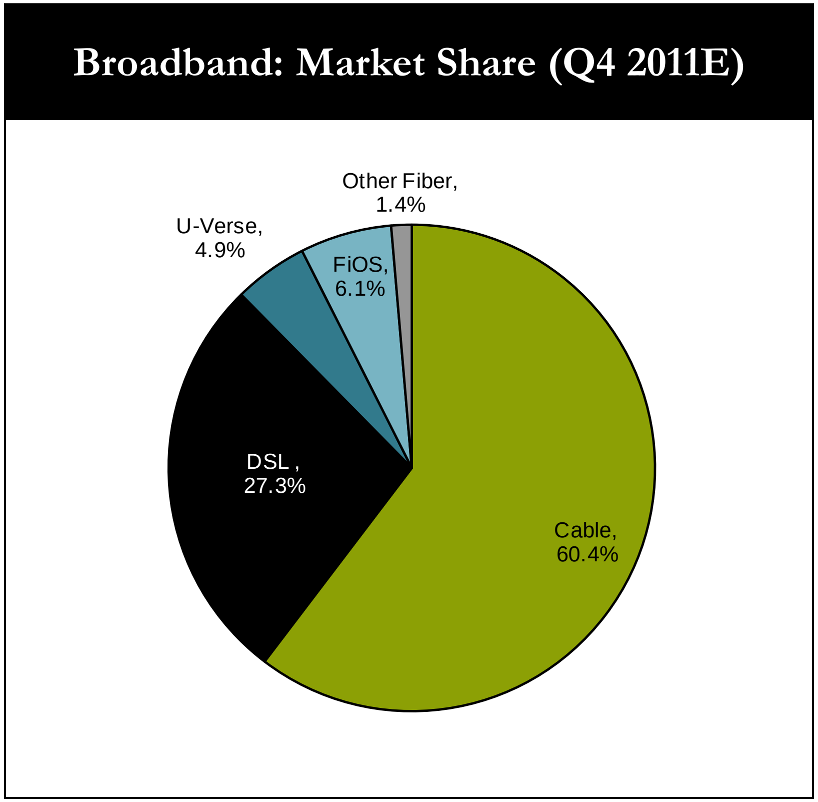
Share of Broadband Net Additions



Source: Company Reports, Bernstein Estimates and Analysis

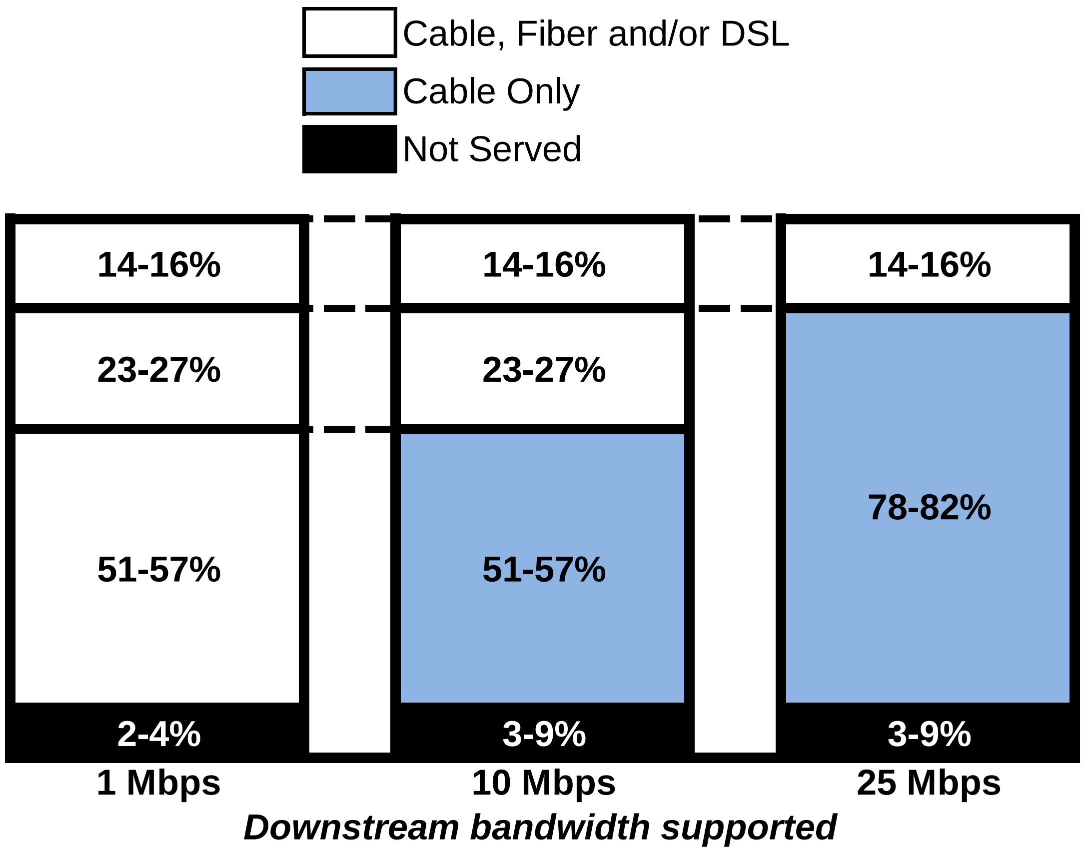
FiOS and *U-Verse* Are Only a Small Slice of the National Broadband Market





Source: Company reports, Bernstein analysis

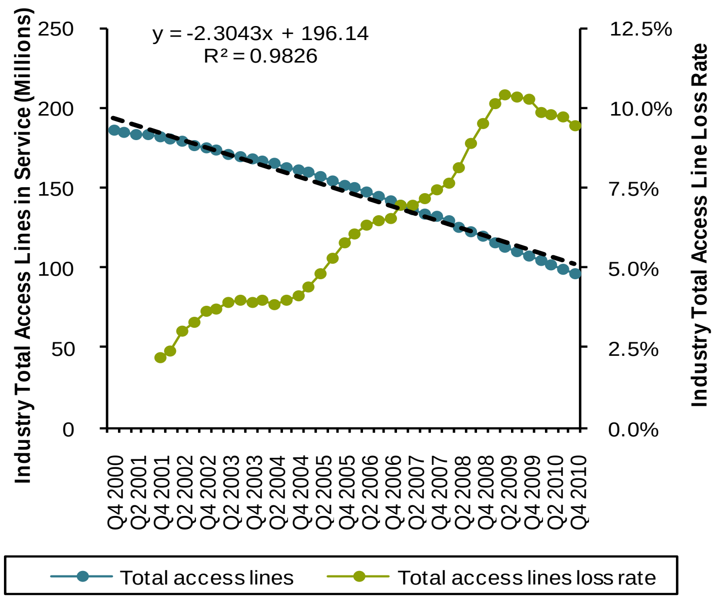
FCC: "Only One Technology Meets the Demands of a 25Mbps End-user"



Sources: The FCC; 2009 Form 477 data; service provider, equipment manufacturer, and trade association filings and publications; analyst

The TelCo Dilemma: Residential Access Lines Are in Free Fall

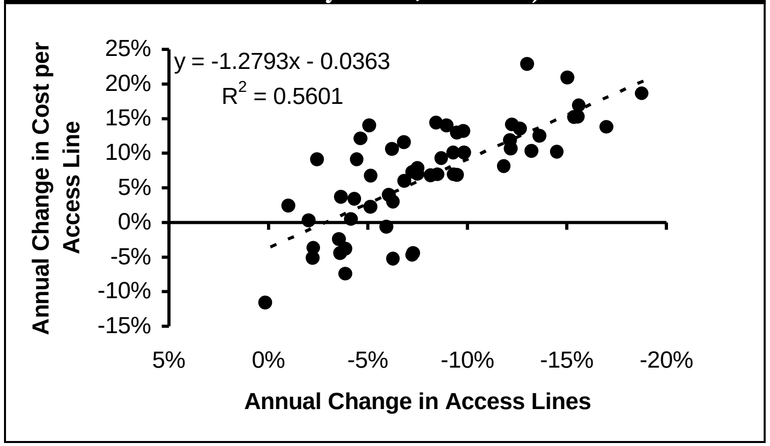
U.S. Access Lines in Service



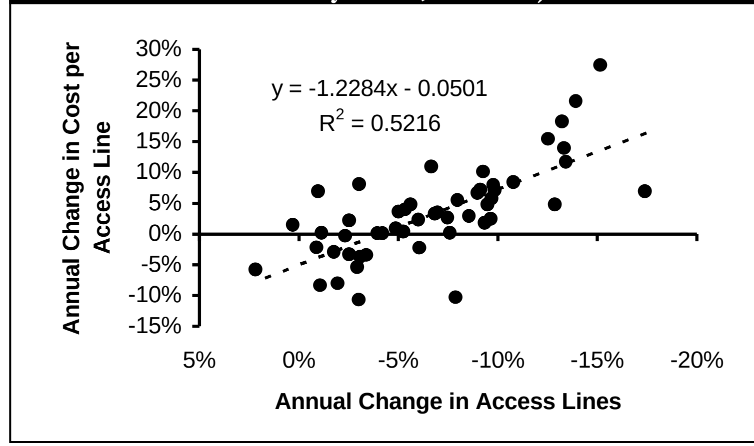
Source: Company reports, Bernstein estimates and analysis

As Access Line Losses Mount, Unit Costs are Soaring

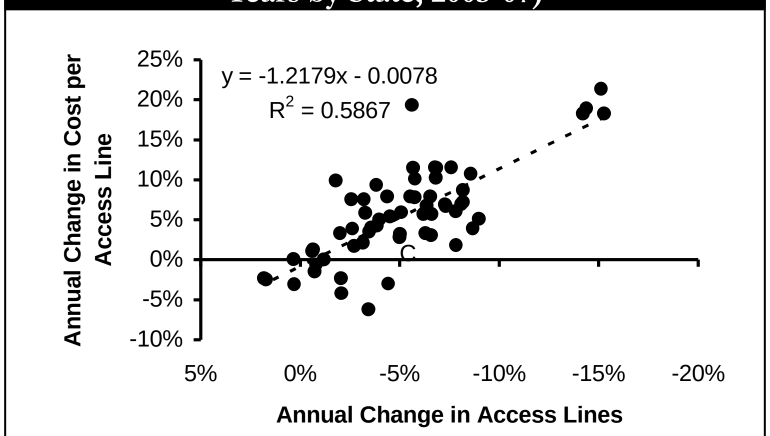
Verizon (Legacy Bell States): Rate of Access Line Loss Versus CAGR in Cost per Line (Individual Years by State, 2004-07)



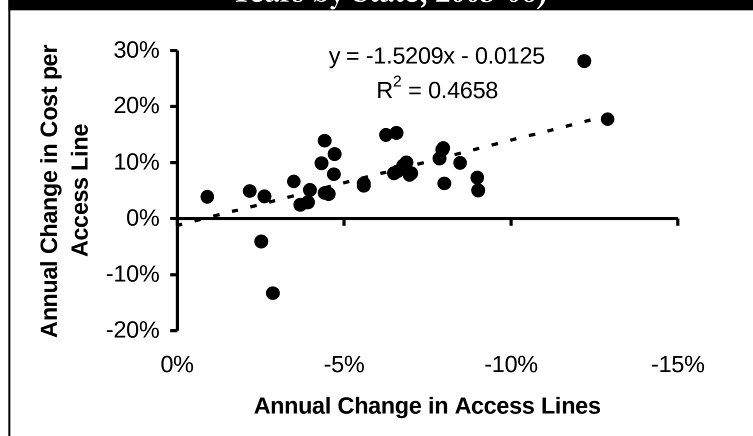
Verizon (Legacy GTE States): Rate of Access Line Loss Versus CAGR in Cost per Line (Individual Years by State, 2004-07)



AT&T (Legacy SBC States): Rate of Access Line Loss Versus CAGR in Cost per Line (Individual Years by State, 2003-07)



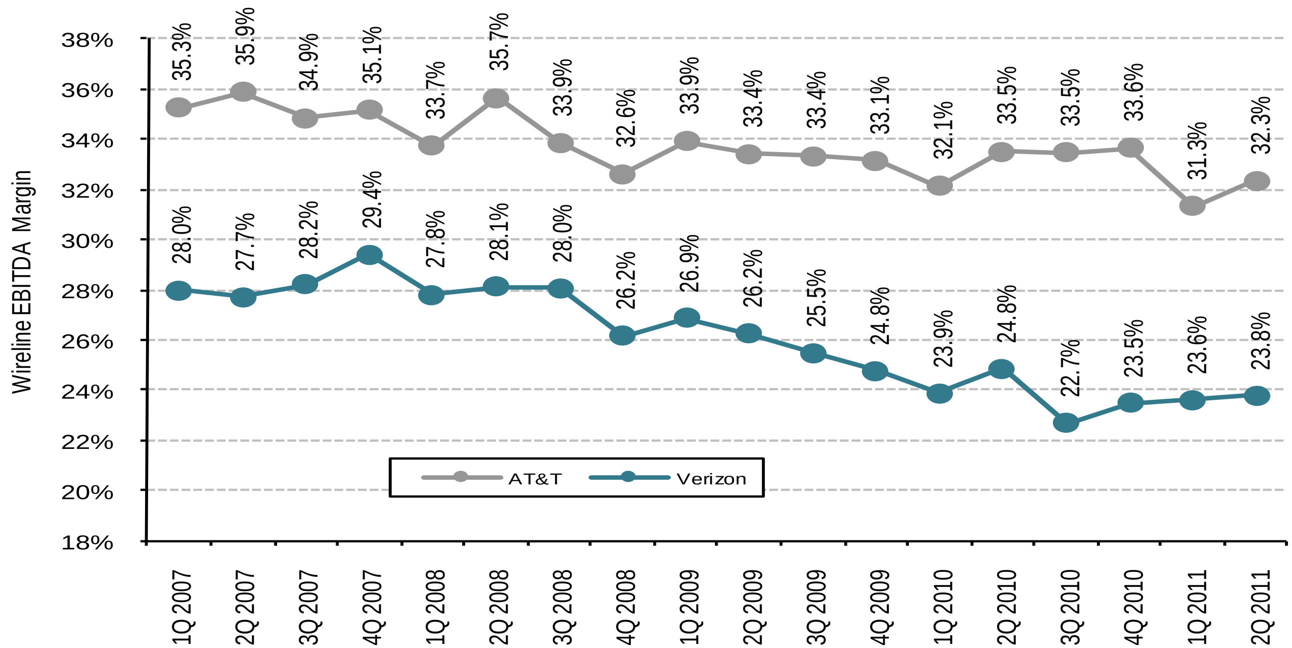
AT&T (Legacy BellSouth States): Rate of Access Line Loss Versus CAGR in Cost per Line (Individual Years by State, 2003-06)



Source: FCC and Bernstein estimates and analysis

As Volumes Fall, Wireline Margins Are Deteriorating

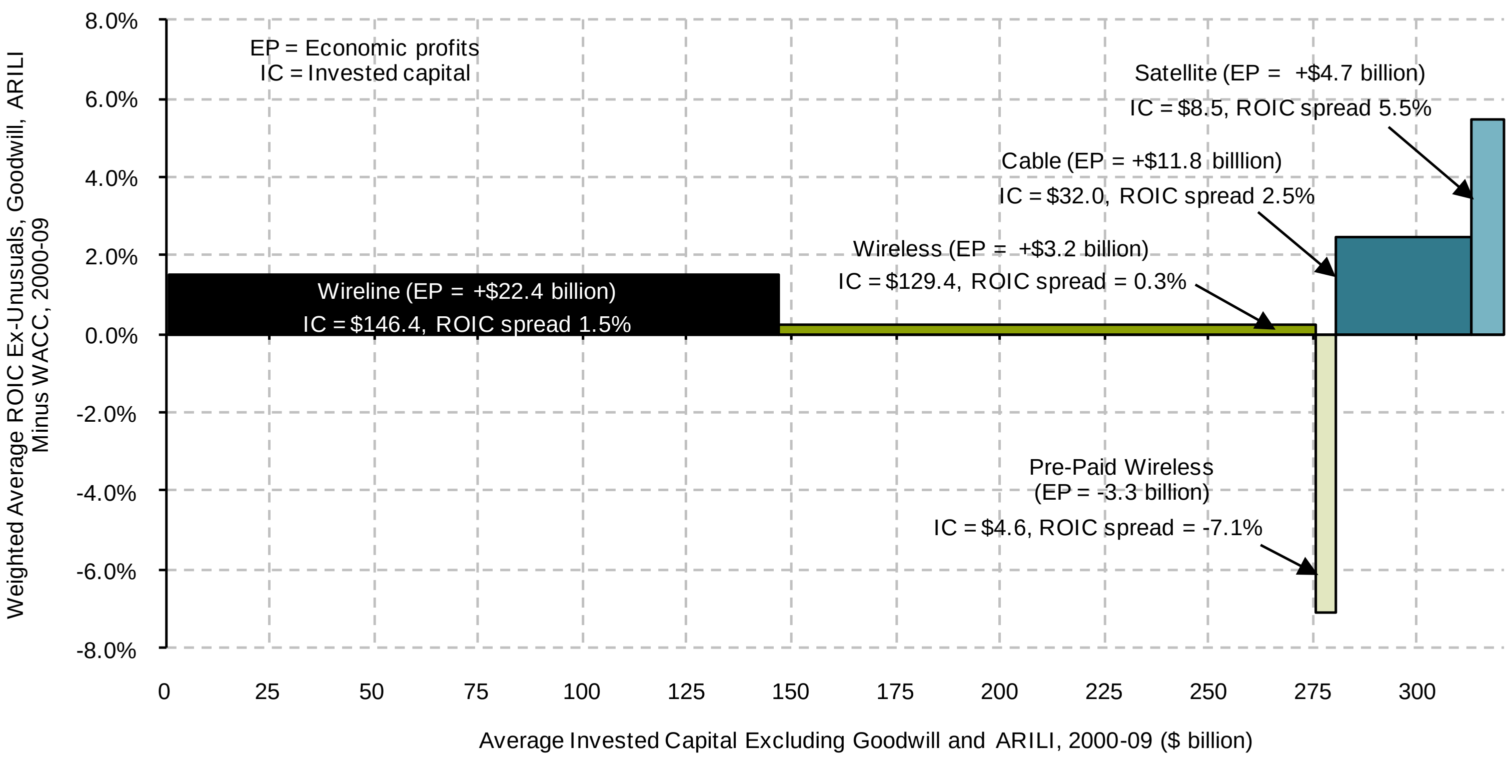
Verizon and AT&T: Wireline Margins



Source: Bernstein Estimates and Analysis

A Decade of ROIC (I)… Anemic Returns on Net PP&E

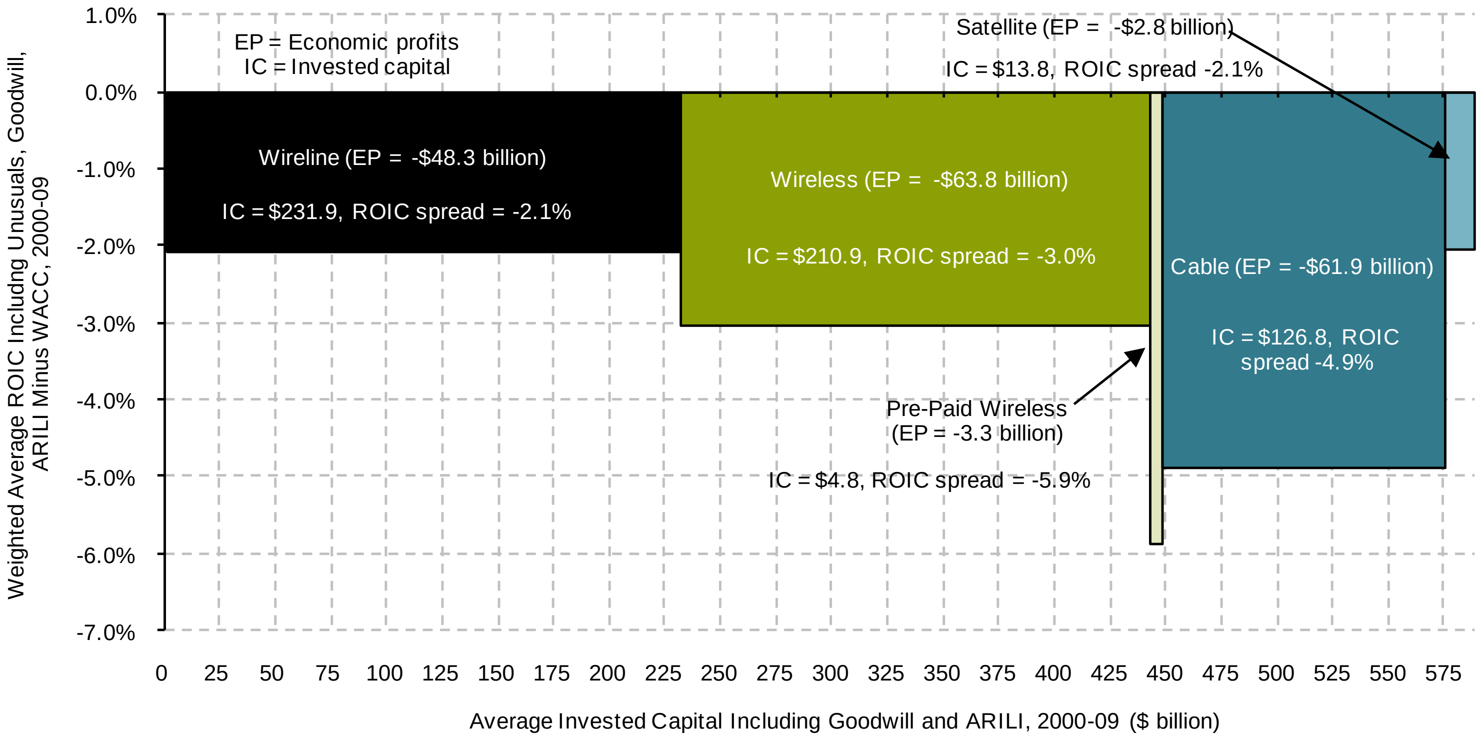
A Decade of Economic Value Added (Excluding Unusuals, Goodwill, and ARILI)



Source: Capital IQ, corporate reports and Bernstein estimates and analysis

A Decade of ROIC (II)… and even worse returns when you include what was actually *paid* for the assets

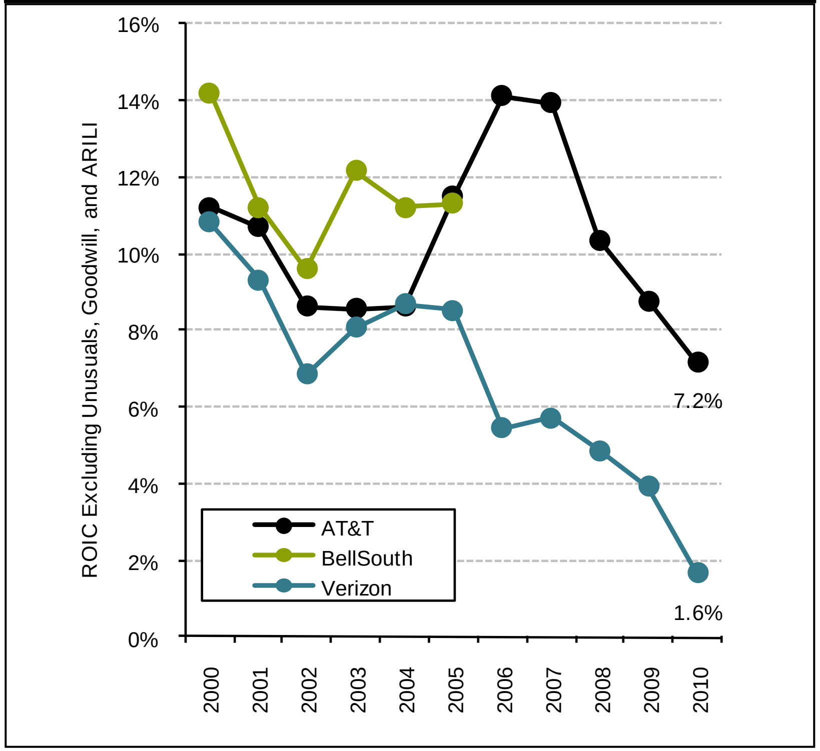
A Decade of Economic Value Added (*including* Unusuals, Goodwill, and ARILI)



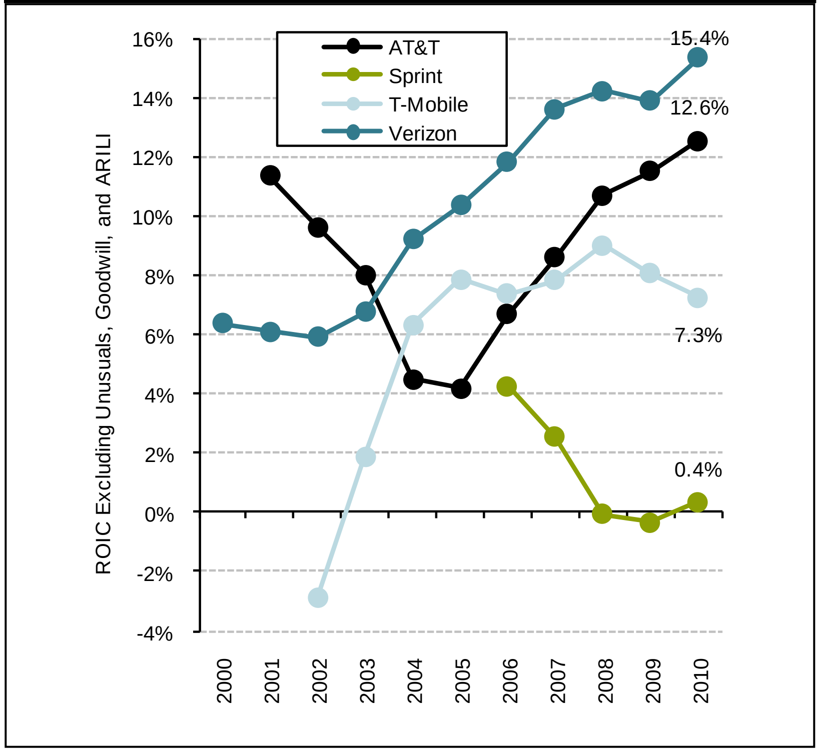
Source: Capital IQ, corporate reports and Bernstein estimates and analysis

Wireline Telecom ROIC now mostly below the cost of capital… wireless is a mixed bag, with clear winners and losers

Wireline ROICs excluding Unusuals, Goodwill and ARILI, 2000 to 2010



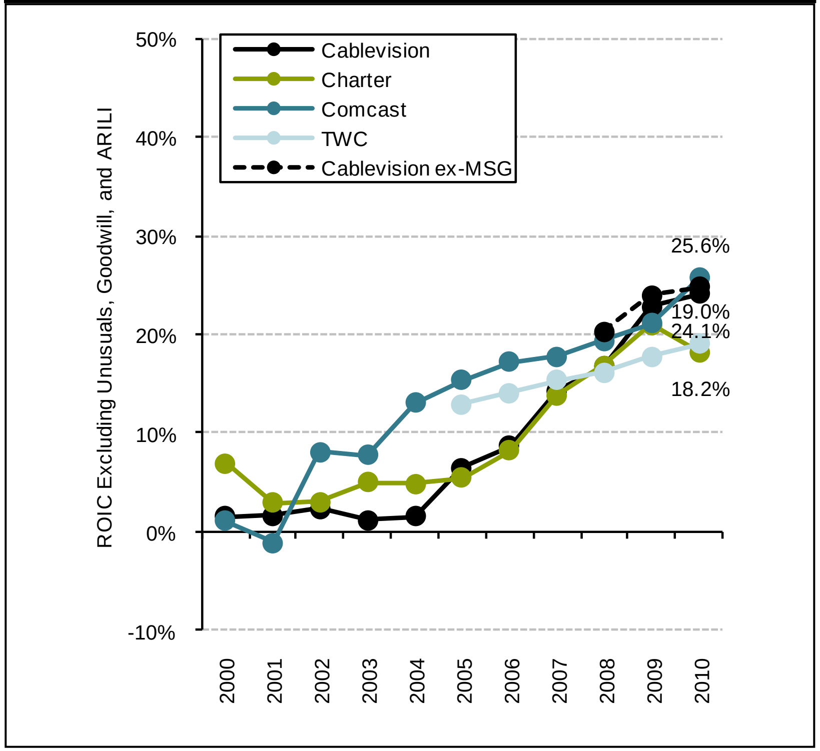
Wireless ROICs excluding Unusuals, Goodwill and ARILI, 2000 to 2010



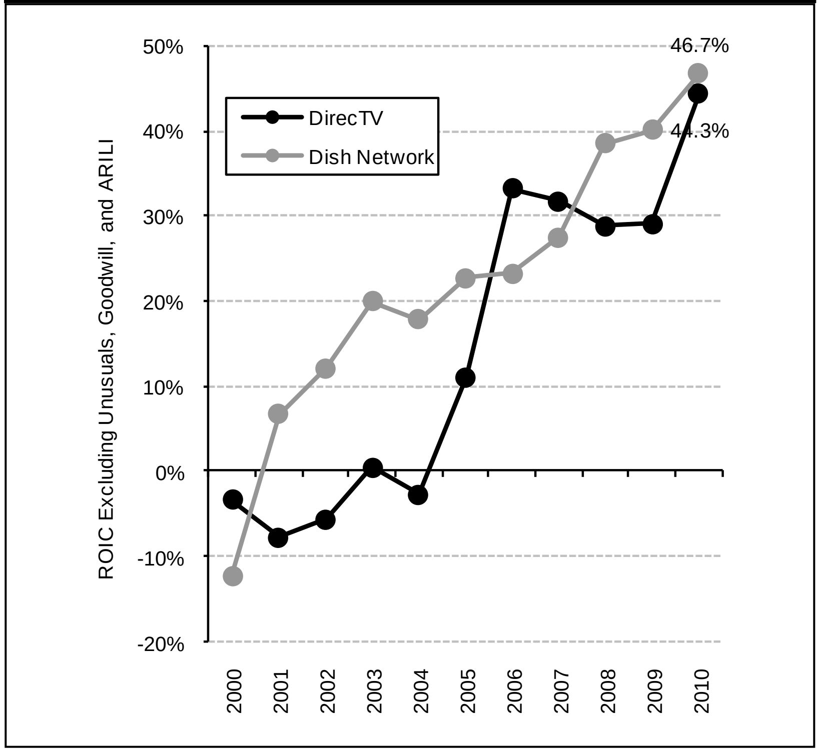
Source: Capital IQ, corporate reports and Bernstein estimates and analysis

Cable and Satellite sub-sectors show strongly rising ROIC

Cable ROICs excluding Unusuals, Goodwill and ARILI, 2000 to 2010



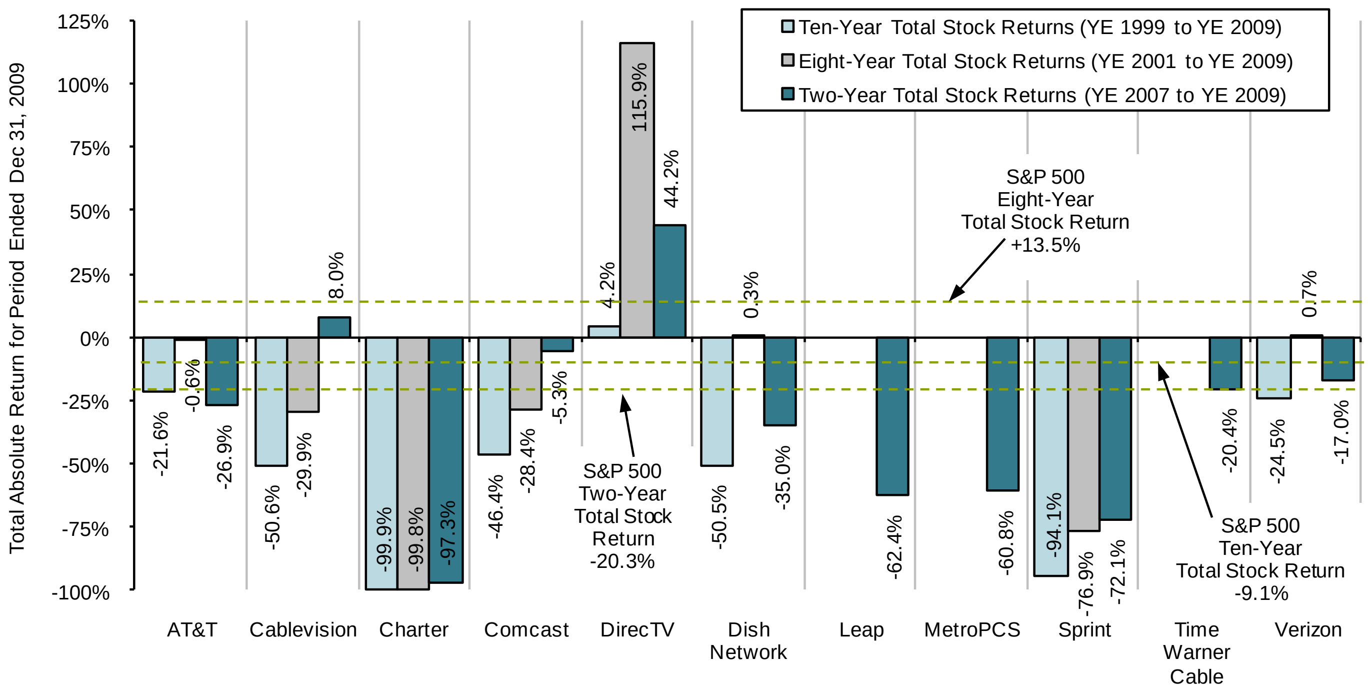
Satellite ROICs excluding Unusuals, Goodwill and ARILI, 2000 to 2010



Source: Capital IQ, corporate reports and Bernstein estimates and analysis

A Decade of Stock Performance… poor ROIC translates into poor total shareholder returns

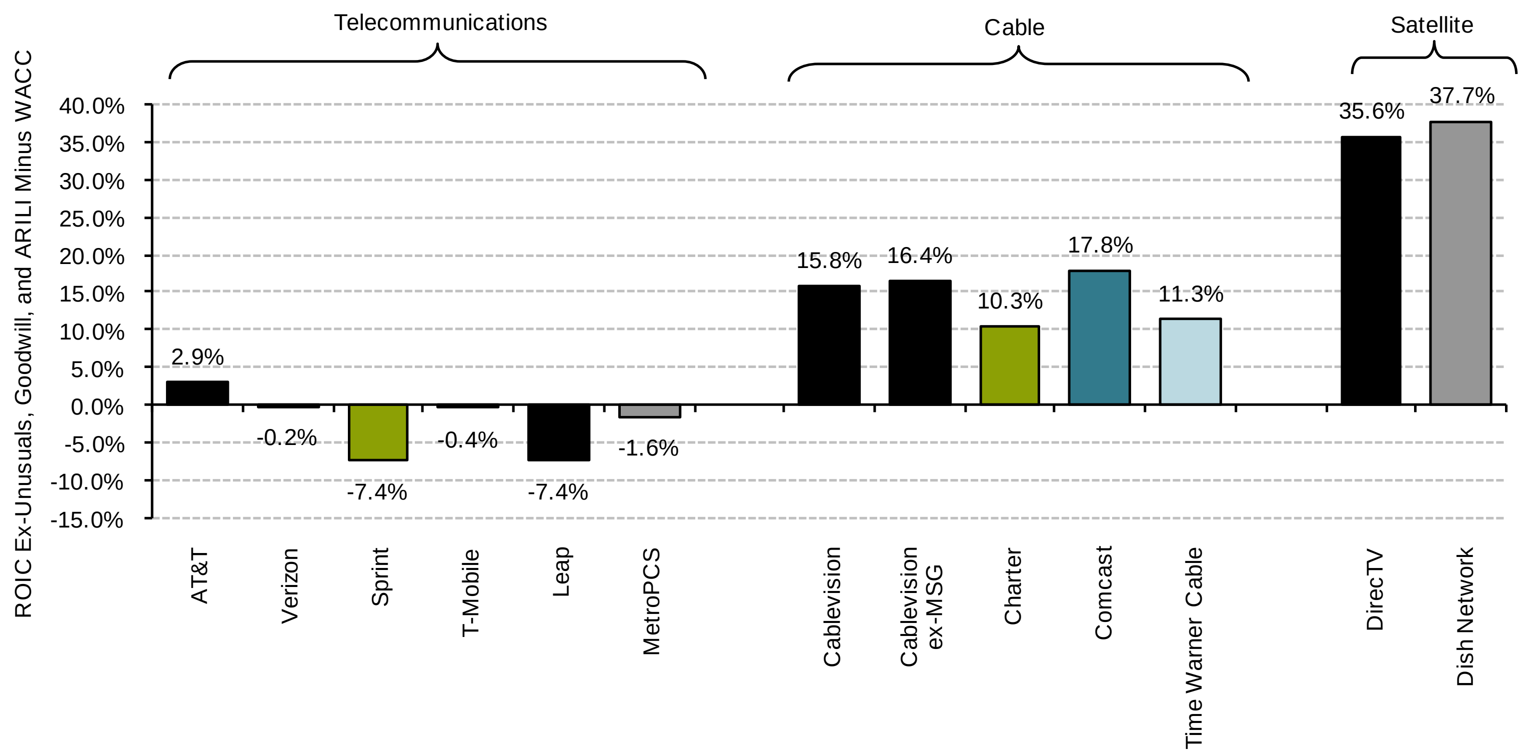
A Decade of Investment Returns: Cumulative Total Stock Performance (Absolute)



Source: Capital IQ, corporate reports and Bernstein estimates and analysis

ROIC is now much better (than historical) for cable, and worse for telecom

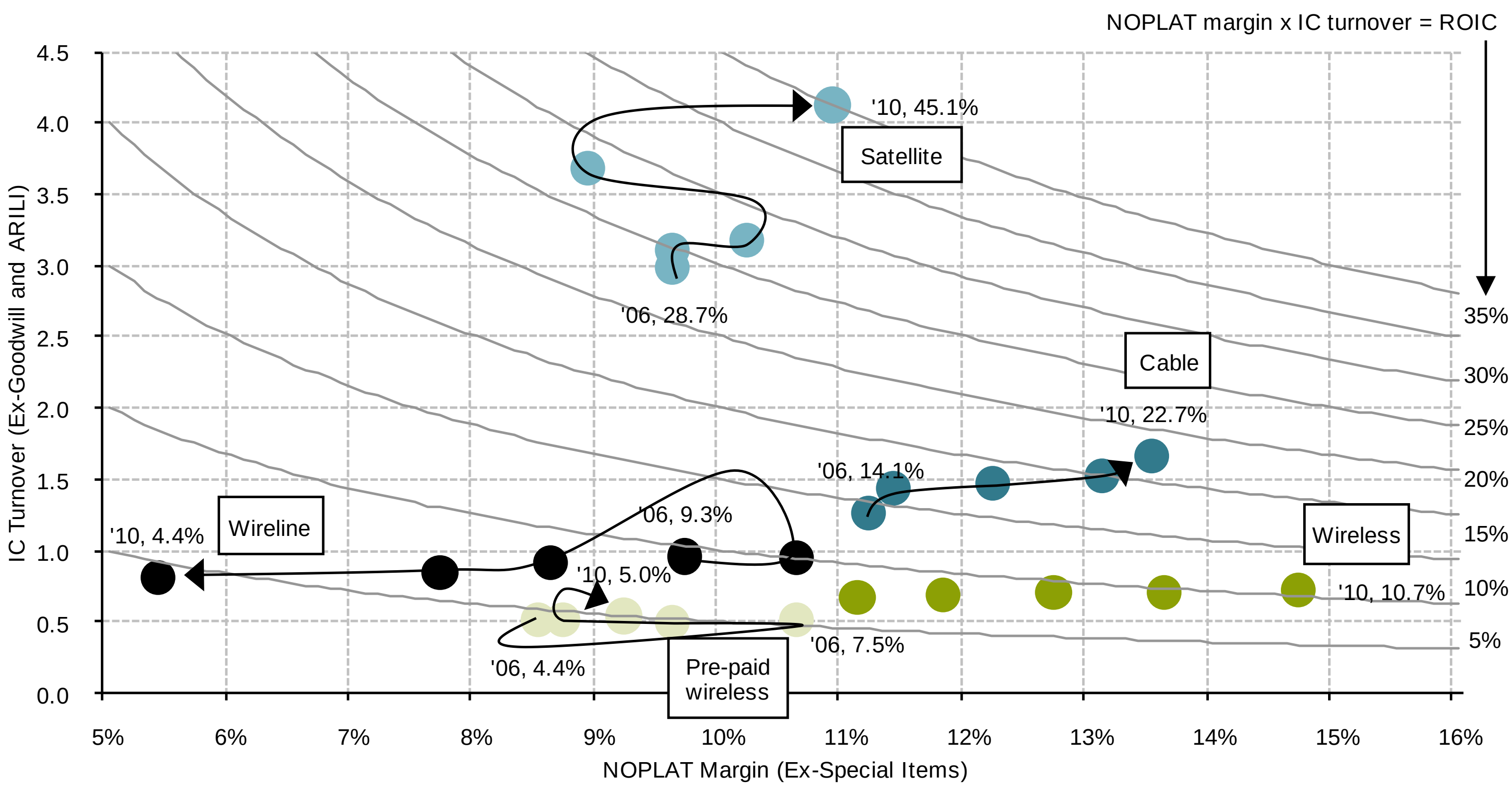
ROIC Excluding Unusuals, Goodwill and ARILI Minus WACC, 2010



Source: Capital IQ, corporate reports and Bernstein estimates and analysis

Decomposing ROIC (II) into Asset Turnover and Margins (sub-sectors)

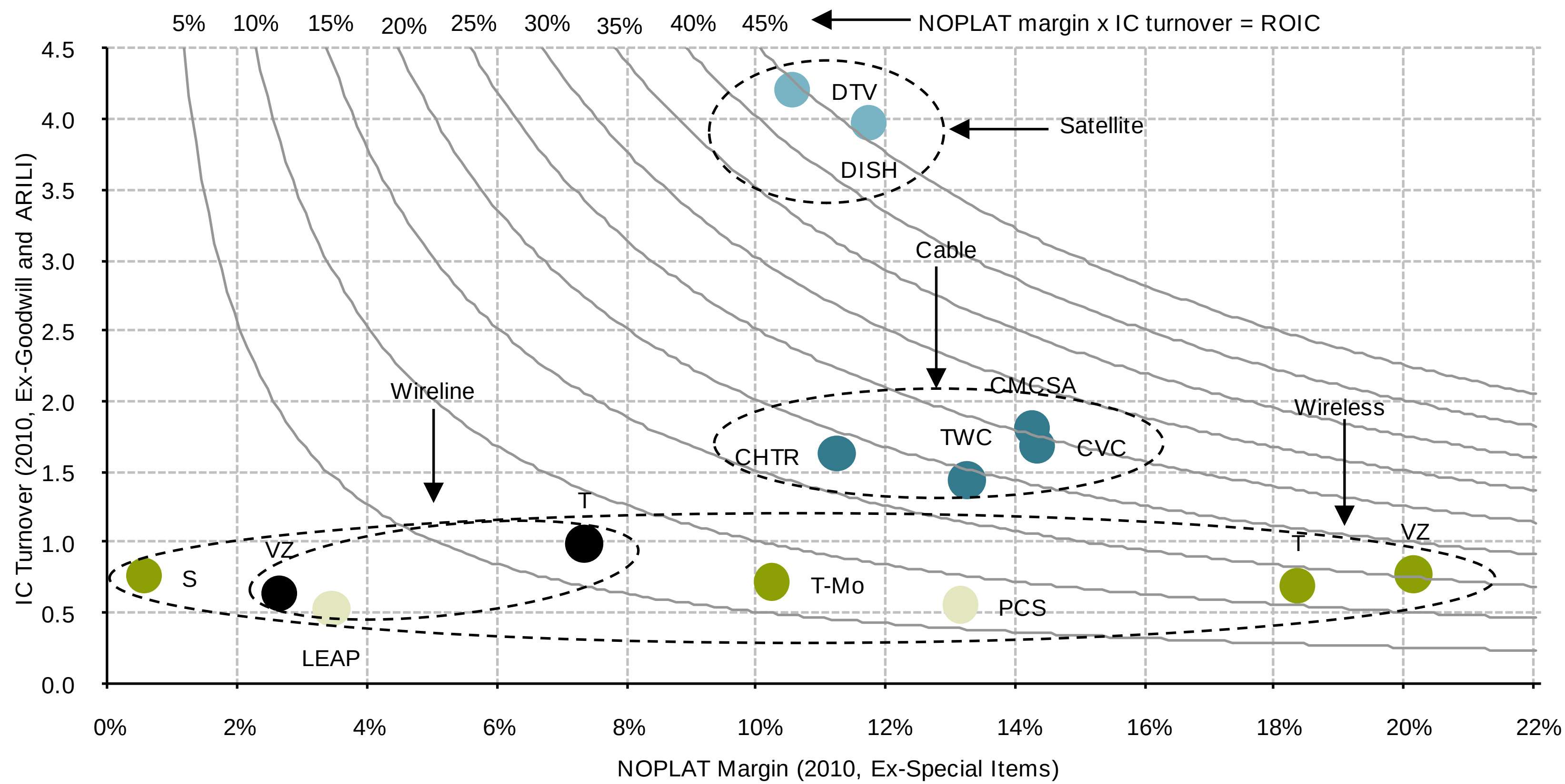
Changes in IC Turnover excluding Goodwill and ARILI and NOPLAT Margin excluding Unusuals Combinations by Industry, 2006 to 2010



Source: Capital IQ, corporate reports and Bernstein estimates and analysis

Decomposing ROIC (I) into Asset Turnover and Margins (companies)

IC Turnover excluding Goodwill and ARILI and NOPLAT Margin excluding Unusuals Combinations by Company, 2010



Source: Capital IQ, corporate reports and Bernstein estimates and analysis

Summary and Conclusions

- Penetration is slowing… but the data suggests we're far from done yet
- Fiber deployments near the end
- Telco share falling…
- …and TelCo wireline economics are deteriorating
- Cable is winning the broadband wars
- Infrastructure returns are anemic – *across the board*

Disclosure Appendix

U.S. Telecommunications and Cable & Satellite: Coverage Universe

Stock	Rating	Target Price	Closing Price (01-13-12)	Stock	Rating	Target Price	Closing Price (01-13-12)
VZ	U	$32.00	$38.92	CMCSA	O	$32.00	$25.38
T	M	$30.00	$30.07	TWC	O	$88.00	$65.43
S	M	$2.50	$2.31	CVC	M	$20.00	$13.97
LEAP	O	$12.00	$9.96	DISH	M	$28.00	$28.75
PCS	O	$13.00	$8.35	DTV	O	$52.00	$43.46

Source: Bloomberg, Bernstein estimates and analysis

Valuation Methodology

We value AT&T and Verizon on a combination of P/FE and a sum of the parts analysis. Assigned multiples are based on historical performance, colored by the company's current allocation of capital.

We value AT&T on a combination of a target P/FE multiple of 13.0x applied to our estimated forward earnings, as adjusted, and a sum of the parts analysis which yields a warranted blended EV/EBITDA multiple of 5.6x after adjusting for postretirement liabilities. We add the probability-weighted expected value associated with the proposed acquisition of T-Mobile USA.

We value Verizon on a combination of a target P/FE multiple of 13.0x applied to our estimated earnings, as adjusted, and a sum of the parts analysis which yields a warranted blended EV/EBITDA multiple of 5.7x after adjusting for postretirement liabilities.

We value Sprint using EV/EBITDA multiples of 5.5x forward 12 month EBITDA for the wireless business (proportionately consolidating their 54% stake in Clearwire) and 3.5x for the wireline business, adjusted for other non-operating assets and liabilities.

We value Leap Wireless and MetroPCS based on a weighted average of derived DCF values under four different scenarios – a base case (which is given a 50% weight in the target price derivation), high and low scenarios (weighted at 15% each), and a realistic downside scenario (weighted at 20%). Our base case scenario assumes that Leap and MetroPCS' unlimited pre-paid ARPU remains in the $38-$39 range through 2015 and that their penetration of covered POPs reaches 7.2% and 9.5%, respectively, with the high and low scenarios respectively incorporating more optimistic and pessimistic assumptions for ARPU, subscriber growth, CPGA, CPU and capex.

We value the DBS sector on the basis of Steady State Cash Flow (SSCF) multiples, adjusted for market value estimates for non-DBS assets. SSCF multiples have historically clustered around 9-11x trailing SSCF for DirecTV and Dish Network, with higher multiples reflecting higher growth expectations, and lower multiples reflecting lower growth expectations. We currently apply a 7.5x SSCF multiple to our forecast forward 12 month SSCF for DirecTV and a 6.0x multiple for Dish Network, reflecting a 12 month look forward as the basis of our 12 month target price, and lower-than-historical SSCF multiples to reflect the sector's and the companies' diminished longer term growth prospects. We value the company's Latin American assets using a forward SSCF multiple of 6.5x for PanAmericana and Sky Brazil, and a 10.0x trailing EBITDA multiple for Sky Mexico.

Valuation Methodology, continued

We value Comcast on a sum-of-the-parts basis. Our target is based on a forward 12 month EV/forecast EBITDA multiple of 6.25x for the core cable distribution business, 8.0x forward EV/ EBITDA for the cable networks businesses of Comcast and NBCU, and 6.0x forward EV/EBITDA for NBCU's broadcast business. We value other consolidated and non-consolidated operations and non-public equity investments on various bases as appropriate. Publicly traded investments are carried at current market value.

In order to derive our price target for Time Warner Cable, we use a target multiple of 6.5x forward 12 month forecast EBITDA, and add back the NPV of Time Warner Cable's deferred tax asset. We estimate that Time Warner Cable will realize approximately $330 million of tax savings per year for fifteen consecutive years from the 2006 acquisition of Adelphia as a result of its step-up in basis. When calculating the net present value of these tax shields, we apply an 7.50% discount rate, which corresponds to Time Warner Cable's estimated weighted average cost of capital.

We value Cablevision on a sum-of-the-parts basis. Our target is based on a forward 12 month EV/forecast EBITDA multiple of 7.0x for the core cable business. We value other assets and liabilities on various bases as appropriate.

Risks

The risks to our target price for AT&T include:
Failure to gain regulatory approval to close the proposed T-Mobile USA transaction, adverse financial or other consequences associated with any conditions required to garner regulatory approval, or the inability to wring the expected synergies out of a combined entity.
A steeper, or more sudden, deceleration in wireless subscriber growth – as a consequence of wireless saturation or economic weakness – would lead to sharply slower growth, and would likely be met with severe multiple contraction, in our view.
Faster-than-anticipated penetration of the Small and Medium Business market by the MSOs would undermine revenue and EBITDA recovery in the Enterprise segment.
Additional spending on fiber expansion (FTTX) projects, or acquisitions targeting the Consumer Wireline segment (including purchasing a Satellite Pay TV provider) would yield lower ROIC and consequent multiple contraction.
Overpayment in an acquisition, which could be a variety of potential targets.

Our target price for Verizon is below the current trading range. Upside risks to our target price include:
Lower-than-expected inflationary pressures in the macro-economy, which could result in generally lower interest rate expectations, and consequently, make current dividend yields more attractive relative to investment alternatives.
Faster growth in wireless subscribers than we anticipate, which could be a result of stronger economic growth, increased market share for Verizon, or higher terminal wireless market penetration than we forecast.
Slower-than-anticipated penetration of the Small and Medium Business market by the MSOs would help to preserve revenue and foster an EBITDA recovery in the Enterprise segment.
Subscriber gains as a result of fiber expansion (FTTX) projects could be greater than we forecast, yielding a higher ROIC and possible multiple expansion.
Access line and DSL losses in the TelCo segment could be less severe than we forecast, leading to better than expected revenues and margins.
A faster-than-expected recovery in Enterprise revenues and margins.
Acquisition of Vodafone's 45% stake in Verizon Wireless at an attractive price would be accretive to value and would remove a significant overhang from the shares.

Our target price for Sprint is below the current trading range. Upside risks to our Sprint target price include the following:
A potential regulatory rejection of the AT&T and T-Mobile merger, which would give Sprint more leverage to strike a replacement deal with T-Mobile.
A spin off of Nextel could results in improved operating metrics, or, alternatively, could fuel investor enthusiasm even in the absence of improvement.
The growth rate of the industry could prove stronger than we anticipate. Sprint's churn rate or share of gross additions could improve sooner or more meaningfully than we anticipate.

The downside risks facing our target prices for Leap Wireless and MetroPCS include the following:
Irrational pre-paid price competition initiated by one of the major carriers – most likely Sprint and/or T-Mobile, who are losing post-paid subscribers irrespective of their efforts on the pre-paid side and thus are not as concerned about cannibalization between pre-paid and post-paid.
More limited than expected ability to penetrate their respective markets due to intensified pre-paid competition and/or economic forces, which could compromise their scale economies and overall cost structure.
Greater than expected data consumption among pre-paid subscribers, which in turn could drive higher than expected capex requirements.
Downside risks specific to Leap include the possibility its new initiatives, including its new MVNO relationship with Sprint and nationwide 3G data roaming offer, raise its cost structure beyond expectations.
Downside risks specific to MetroPCS include a greater-than-expected negative impact from Leap eventually selling its services in MetroPCS' footprint under its MVNO agreement with Sprint.
Upside risks to our target prices for MetroPCS and LEAP include the following:
Greater than expected growth in the pre-paid wireless market overall, due to more post-paid wireless subscribers migrating to unlimited pre-paid
Greater than expected uptake of higher priced service offerings, which could result in enhanced profitability.
More rational price activity in the pre-paid market

Risks, continued

Upside risks to our target price for Dish Network include:
Faster-than-expected subscriber growth would likely yield multiple expansion, almost irrespective of economic cost.
A stronger-than-expected economic recovery could result in renewed demand for premium services, providing upside to ARPU.
An acquisition of DirecTV by AT&T or Verizon, which has been the subject of speculation for years, if it were to occur, would likely create perceived "scarcity value," and would raise valuation multiples for Dish Network.
Potential value creation resulting from Dish's recently acquired assets, namely their spectrum holdings and Blockbuster.
Downside risks to our target price for Dish Network include:
Slower-than-expected subscriber growth would likely yield multiple contraction.
A weaker-than-expected economic recovery could result in reduced demand for premium services, providing downside to ARPU.
A premium of some amount is likely baked into Dish's share price based on the widely-held expectation that an acquisition by AT&T or Verizon is likely. A change in these expectations could result in multiple contractions.
Attempts to build a terrestrial network based on the company's spectrum holdings would likely be a value destructive activity, and attempts to turnaround Blockbuster may also yield negative returns.
An unfavorable resolution to Dish's litigation with AMC Networks and Cablevision with regards to VOOM could be material.
Risks to our price targets for the Cable operators include the risk that the competitive pricing environment will be more aggressive than we expect. Notwithstanding our analysis of rational pricing strategies, players may adopt irrational pricing behavior. Alternatively, mere *expectations* of a more challenging pricing environment, even in the absence of evidence of price competition, may continue to weigh on the stocks for some time.
New pathways to the home for video or other entertainment could also reduce the value of cable's video distribution bottleneck. Deep fiber deployments by the RBOCs will impact cable subscribers and revenue growth rates, and could occur more quickly, or have a more significant pricing impact, than we have forecast.

Comcast

Video pricing could come under pressure as growth for the satellite operators and TelCos slows.
The fear of disintermediation (video over the internet) may continue to depress terminal values indefinitely.
Longer term, cable's advantaged position in broadband could result in regulation.

Time Warner Cable

Video pricing could come under pressure as growth for the satellite operators and TelCos slows.
The fear of disintermediation (video over the internet) may continue to depress terminal values indefinitely.
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Cablevision

Cablevision has a history of erratic corporate governance. A return of cash to shareholders cannot be assured.
Cablevision faces a very substantial overlap with Verizon's *FiOS* that could result in greater share loss or lower prices than anticipated.
The fear of disintermediation (video over the internet) may continue to depress terminal values indefinitely.
Longer term, cable's advantaged position in broadband could result in regulation.

Disclosure Appendix

SRO REQUIRED DISCLOSURES

References to "Bernstein" relate to Sanford C. Bernstein & Co., LLC, Sanford C. Bernstein Limited, Sanford C. Bernstein (Hong Kong) Limited, and Sanford C. Bernstein (business registration number 53193989L), a unit of AllianceBernstein (Singapore) Ltd. which is a licensed entity under the Securities and Futures Act and registered with Company Registration No. 199703364C, collectively.

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Bernstein rates stocks based on forecasts of relative performance for the next 6-12 months versus the S&P 500 for stocks listed on the U.S. and Canadian exchanges, versus the MSCI Pan Europe Index for stocks listed on the European exchanges (except for Russian companies), versus the MSCI Emerging Markets Index for Russian companies and stocks listed on emerging markets exchanges outside of the Asia Pacific region, and versus the MSCI Asia Pacific ex-Japan Index for stocks listed on the Asian (ex-Japan) exchanges - unless otherwise specified. We have three categories of ratings:

Outperform: Stock will outpace the market index by more than 15 pp in the year ahead.

Market-Perform: Stock will perform in line with the market index to within +/-15 pp in the year ahead.

Underperform: Stock will trail the performance of the market index by more than 15 pp in the year ahead.

Not Rated: The stock Rating, Target Price and estimates (if any) have been suspended temporarily.

As of 01/17/2012, Bernstein's ratings were distributed as follows: Outperform - 45.1% (1.4% banking clients) ; Market-Perform - 46.0% (0.5% banking clients); Underperform - 8.9% (0.0% banking clients); Not Rated - 0.0% (0.0% banking clients). The numbers in parentheses represent the percentage of companies in each category to whom Bernstein provided investment banking services within the last twelve (12) months.

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12-Month Rating History as of 01/16/2012

Ticker	Rating Changes			
CMCSA	O (RC) 12/14/10			
CVC	M (RC) 05/10/10			
DISH	M (RC) 10/10/08			
DTV	O (RC) 01/11/12	M (RC) 04/24/08		
LEAP	O (RC) 09/28/11	M (RC) 02/09/11	O (IC) 12/14/09	
PCS	O (RC) 08/10/11	M (RC) 08/09/10		
S	M (RC) 09/19/11	U (RC) 03/21/11	M (RC) 03/14/11	U (RC) 01/19/10
T	M (RC) 10/25/11	O (RC) 03/24/11	M (RC) 01/05/09	
TWC	O (RC) 11/02/10			
VZ	U (RC) 10/12/10			

Rating Guide: O - Outperform, M - Market-Perform, U - Underperform, N - Not Rated
Rating Actions: IC - Initiated Coverage, DC - Dropped Coverage, RC - Rating Change

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