NIBC | NATIONAL INVESTMENT BANKING COMPETITION & CONFERENCE

NIBC 2016 First Round Case

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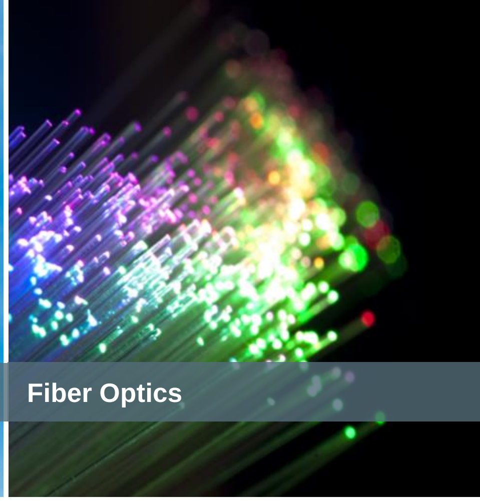
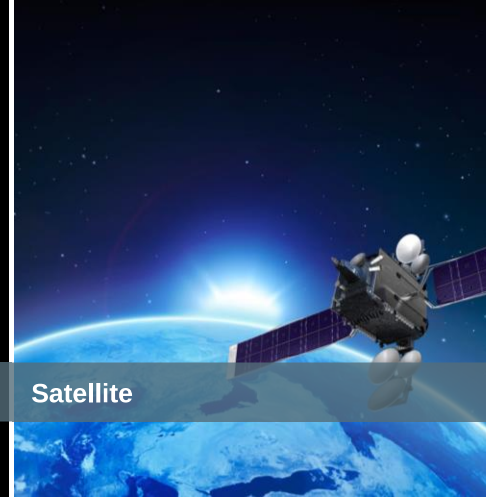




Welcome Letter

Dear Competitors,

Thank you for choosing to compete in the 2016 National Investment Banking Competition. This year NIBC has continued to expand globally, attracting top talent from 100 leading universities across the globe. The scale of the Competition creates a unique opportunity for students to receive recognition and measure their skills against peers on an international level.

To offer a realistic investment banking experience, NIBC has gained support from a growing number of former organizing team members now on the NIBC Board, who have pursued investment banking careers in New York, Hong Kong, Toronto, and Vancouver. Members of the NIBC Board have been involved in the development of the case and competition including creating and refining model templates and data sets to reflect best practices in the industry. The First Round Case is designed to maximize the learning experience of competitors by providing a comprehensive set of materials that enable competitors to focus on their analytical ability and create a compelling pitchbook.

Please take the time to review the rules and procedures outlined in this package and direct any inquiries to Karsten Lee at Karsten.Lee@nibc.ca. Please direct case-related questions to Hovy Qiu at Hovy.Qiu@nibc.ca.

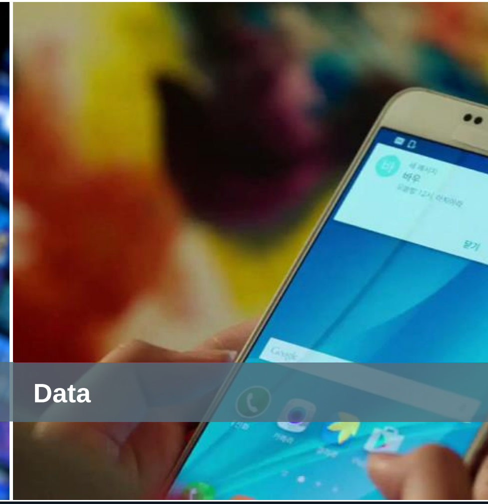
We wish all teams the best of luck in the First Round, and we hope to see you in the Second and Final Rounds in Vancouver, Canada in March 2016.

The NIBC 2016 Organizing Team and Board Case Committee,

Karsten Lee, Director, Competition
Nicole Ponto, Director, Conference
Joseph Liu, Director, Marketing
Caitlyn Yu, Director, Internal
Olga Kubliy, Director, Training

Hovy Qiu, Director, Case
Jessica Ljustina, Associate, Case
Peter Yuan, Associate, Case
Cameron Strukoff, Associate, Case

Phil Chua, Associate, Macquarie Capital
Gint Austrins, Research Analyst, Global Securities
Michael Scott, Vice-President, RBC Capital Markets
Amardeep Chandi, Associate, KKR
Brenden Lee, Analyst, Evercore
David Lam, Analyst, Macquarie Capital



1. The Scenario

You are a fresh hire at an investment bank and keen to demonstrate your drive and capabilities to your team. You have been staffed on a team with an ambitious young Managing Director who has arranged a meeting with an executive of the telecommunication service provider AT&T.

Your bank is not currently one of AT&T's advisors, but following the recent acquisition of DirecTV, AT&T has invited a number of financial advisers to submit a strategic review of the business, based on which AT&T will decide whether to engage the group further.

Dealflow in your office has been strong lately, so your team is lean and comprised only of the aforementioned Managing Director, a Vice President, and yourself. In addition, the Vice President recently closed a high-profile telecommunication transaction and is taking advantage of his accumulated vacation days.

As such, the Managing Director has handed you the responsibility for the origination work. AT&T has provided your team with a compilation of materials and expects you to come prepared with some concrete insights in the first meeting. With only you in the office, the Managing Director has made it clear that you are responsible for understanding AT&T's business model and delivering solid ideas for the meeting. You have a few weeks, but are working on other files in parallel, so are bracing yourself for some long nights ahead if you want to distinguish yourself.

2. Background Information

. Corporate Overview

Name: AT&T
Exchange: NYSE
Ticker: T
Share Price as of Oct 25, 2015: $33.75

FY2014 Revenues: $132,447m
FY2014 EBITDA: $30,001m
FY2014 Net Income: $6,224m
FY2014 Diluted EPS: $1.19
2014 fiscal year end is Dec 31, 2014

52-Week Range: 30.97 – 36.45
Market Cap: 208.89bn
Debt: 76,011m
Cash: 8,603m

AT&T Inc. is an American multinational telecommunications corporation, headquartered in Dallas, Texas. The Company provides telecommunications services. Its services and products include wireless communications, data/broadband and Internet services, video services, local exchange services, long-distance services, telecommunications equipment, managed networking and wholesale services. Its segments include Wireless, Wireline and International. Its wireless subsidiaries provide both wireless voice and data communication services. The wireline subsidiaries provide landline data and voice communication services, AT&T U-verse broadband, video and voice services (U-verse) and managed networking. Among the major US telecom providers, AT&T is the most diversified across various facets of telecommunication and media distribution. Its International segment also utilizes the networks of Nextel Mexico to provide similar services. Through its subsidiary, DIRECTV Group Holdings, LLC (DTV), which it acquired in 2015, AT&T provides pay television in the United States and Latin America.

Revenue Components	Revenue (FY2014)	Revenue (FY2014)
Wireless	$73,992m	55.9%
Wireline	$58,42m	44.1%
Total	$132,447m	100%

Breakdown derived from company reports

II. Fiscal 2014 Highlights

AT&T’s revenue was $132,447m in fiscal 2014, up 2.9% from $128,752m in fiscal 2013. Equipment sales drove growth, up 47.5% YoY, as an increasing percentage of wireless subscribers chose smartphones and customers transitioned from device subsidy models to installment-based purchases.

Wireless revenue was $73,992m in fiscal 2014, compared to $69,899m in fiscal 2013 and $66,763m in fiscal 2012, reflecting growing demand for mobility services and higher value equipment sales.

Wireline revenue was $58,425m in fiscal 2014, stable from $58,814m in the prior year, and down from $5,8271m in 2012, based on the difficult broader market for wireline services.

Long-term debt at the end of fiscal 2014 totaled $82,062m for a Net Debt-to-Adjusted EBITDA ratio of 1.75x, but has since increased to approximately $125,446m due to the acquisition of the satellite provider DirecTV earlier this year.

AT&T operates in a fiercely competitive environment where the right capital allocation and strategic positioning is critical. AT&T provides is regarded as a high quality service provider with one of the most reliable networks in the US.

III. Management Comments

Q3 2015 Earnings Call:
John Stephens CFO & Senior Executive VP

“With the close of our DTV acquisition, we became a unique U.S. competitor. We are the first scaled communications and video provider to offer customers fully integrated nationwide products. Our focus is on profitable growth, and we believe that we have in place the products and the platforms that will enable our success.”

“In the third quarter, our adjusted EPS was $0.74. That's up nearly 14% over last year's third quarter. This includes adjustments for mostly non-cash Cricket network decommissioning and DIRECTV merger-related costs.

The strong growth comes even with earnings pressure from our Mexico wireless operations. Consolidated revenues grew to $39.1 billion. That's up nearly 19% year over year, mostly due to our acquisition of DIRECTV.”

“Cash from operating activities for the quarter totaled almost $11 billion, up more than 20% over last year's third quarter. And free cash flow was $5.5 billion. That brought our free cash flow dividend payout ratio to 57% for the year.”

“Our net debt to adjusted EBITDA ratio was 2.28 times, which was better than our original expectations. Our focus is on maintaining a strong balance sheet. We paid down more than $5 billion in debt early, and we still have more than $6 billion of cash on hand”

IV. Research Analyst Comments

October 2015:

“We believe T will continue to show weakness in postpaid phones (-150k) and that over 60% of the total net adds will be low revenue connected devices (primarily connected cars). Despite this weakness, we think T’s focus on profitability (not chasing each subscriber) will drive wireless and consolidated EBITDA margins higher on a Y/Y basis (+120bps, +47bps, respectively).”

“Combined with high dividend yield, it makes T the “core” large-cap holding in the sector.”

September 2015:

“AT&T is starting to deploy the 20 MHz spectrum WCS band for capacity and carrier aggregation. The company seems to be braced for continued wireless data/video demand growth and is satisfying demand with spectrum and densification using macro cell sites where possible or small cell where needed.”

“With a 6.0% dividend, expected EPS growth of 6.3% in the next three years, and payout ratio falling from ~90% to ~70% in 2018 we believe that AT&T offers little downside and some equity upside as numbers come through, as well as additional upside based on potential synergies.”

August 2015:

“We believe this event (DTV) will kick off a series of catalysts, including potential raises to synergy guidance for DTV, growth in Latin America and potential upward estimate revisions, as synergies and strategic initiatives are achieved.”

“The early outlook for the financial payback from DirecTV continues to look like it will be better than originally expected and we await the operational benefits from the only national wireless/national video player. Connectivity will be the central focus on AT&T’s strategy going forward.”

3. Tasks & Deliverables

You are required to produce two deliverables ahead of the meeting with AT&T comprising a comprehensive valuation model (Excel) and pitchbook (PowerPoint).

A. Discounted Cash Flow Analysis
You begin the analysis with building a Discounted Cash Flow (DCF) model which is a critical component of understanding a company's business model and intrinsic value. The first step is to forecast future financial statements based on historical data in order to project free cash flows generated by the business for its owners. The second step is to discount these cash flows by an appropriate cost of capital to derive the intrinsic present value of the company. Please refer to Section 4A for further detail.

B. Trading Comparables Analysis
For this analysis, you are required to complete a dataset of trading comparables and select the company multiples which are the most suitable for valuing AT&T. Responses should elaborate on the selection of comparables and demonstrate an understanding of how the market values companies in this sector. Please refer to Section 4B as well as Appendix B for further detail.

C. Precedent Transactions Analysis
You will need to be prepared to discuss precedent transaction in the telecom space with AT&T and how those relate to the valuation of AT&T. In your response, you are required to identify the appropriate metrics for each transaction and outline how specific transactions relate to the valuation of AT&T. Please refer to Section 4C as well as Appendix D for further detail.

D. Levered Finance Analysis
AT&T has requested an analysis on the firm's financial capacity to execute one or more transactions in the next year. Your Vice President has asked you to prepare an indicative analysis using a spreadsheet template provided and recommend the preferred capital structure for an acquisition. Please refer to Section 4D for further detail.

E. Strategic Transaction Advice
Your client has emphasized that AT&T operates in a highly competitive and dynamic environment and that they expect to have a knowledge discussion with their prospective financial advisor on how and where AT&T should be allocating capital in order to maximize shareholder value. In preparation for this discussion, you are required to provide an analysis of potential corporate finance transactions from a strategic, financial and operational perspective. Please refer to Section 4E for further detail.

F. Pitchbook
Preparing and delivering an effective pitch is often the most critical component for turning a good idea into a mandate. Your presentation will be the most important determinant during the initial screening process. Your work will be reviewed externally by CEOs and shareholders, and internally by very demanding professionals, who expect key points to be immediately apparent and supported by conclusive evidence. Visual appeal and intuitive organization are key to garnering the attention of this audience in a relatively short time span. Please note that the ultimate purpose of the valuation work and strategic review is to determine what corporate finance transactions could help the client drive shareholder value.

4. Valuation & Technical Guidance

A. Discounted Cash Flow Analysis

I. Historical Financial Statements
II. Forecasting Financial Statements
III. Discounted Cash Flow Valuation
IV. Document Key Assumptions

I. Historical Financial Statement for Valuation Model

Typically, the first task in building a model would be to organize and consolidate the historic financial statements over a given time period, such as five years.

In this case, AT&T's financial statements have been provided for you. Do not attempt to alter the historical inputs. Do not attempt to reconcile changes in the historic cash flow statements with actual account changes on the balance sheet. The historic cash flow statements resemble the results of the company 10-Ks which do not reconcile with balance sheet items by means of simple accounting formulas. However, use normal accounting practices in your forecast period to determine how balance sheet and income statement changes will help construct the cash flow statement.

Do not add or remove rows or columns. In the model, cells that need to be populated by competitors with formulas are shaded in light grey while cells that should be updated with hardcoded inputs are shaded in light blue. **Cells that need to be populated with hardcodes are set to blue font, while cells intended for formulas are set to black font.** Note that assumptions can consist of hardcoded values or formulas derived from hardcoded values. Also note that a formula must contain cell references only and **should not include any hard-coded values**. In order to build the pitchbook, you are required to build a mechanically error-free model with carefully chosen assumptions that are referenced and explained in the pitchbook.

II. Forecasting Financial Statements

As mentioned, the Non-GAAP historical financials have been provided so the model is ready for building the forecast. A model frequently contains separate assumptions pages which drive the forecasted line items on a consolidated financials page. The following sections provide guidance on how to forecast key assumptions listed on the assumptions pages. For items which are less crucial to the company's valuation, please make reasonable assumptions based on your own research and personal opinion. Suggested sources of research include earnings calls, investor presentations, press releases, equity research reports, annual reports and 10-Ks. The following notes contain guidance on how items can be forecasted in general, as well as specific suggestions on how to build the forecast for this company.

<u>Important Note:</u> Some of the more unconventional items (such as DirecTV acquisition) have been forecasted do save time and ensure consistency; please do not modify any cells that are not shaded, for which the assumptions (blue) or formulas (black) have already been populated. Note that some of the items populated may not be consistent with Q3 2015 where they are either immaterial or reflective of a full-year forecast.

Operating Assumptions

1. Accounting

- In addition to its consolidated financial statements, AT&T reports results for each of its individual segments. For analytical purposes, we have forecasted revenues, costs and EBITDA by each segment and have assumed that all shared overhead costs are reflected in the specific cost forecast for each segments.
- AT&T also supplements its GAAP reporting with adjusted Non-GAAP measures which provide a more accurate and less lumpy picture of the cashflows. In line with analyst forecast, we have separated out non-cash GAAP items as a below-the-line item in the historical financials and have focused on Adjusted EBITDA as measure of operating performance on the income statement. We have not included non-cash GAAP items in the forecast as it does not have a material impact on cashflows.
- Management places a greater emphasis and focus on this Non-GAAP measure, with analysts also basing estimates on these figures.

2. Revenues

- Revenues are forecasted using a number of assumptions calculated as a percentage of GAAP revenue.
- Assumptions will typically consist of growth rates applied to a variety of revenue components from previous periods including:
    - Regions
    - Business segments
    - Customers
    - Price
- Forecast revenues based on specific growth rates that take into account your view on each specific segment and split up the growth of each segment.
- In line with research reports and AT&T's reporting up until Q3 2015, we have broken out revenues, operating costs and EBITDA into four (4) main operating segments comprising Wireless, Wireline, Direct TV and International. Note that as of its Q3 2015 report, AT&T has changed the categorization of its business activities.
- Note that despite AT&T's recent announcement of a change in segments starting 3rd quarter of 2015, the segments in the template
- Note that AT&T divested its Advertising Solutions division to Cerberus Capital Management for $740m in cash after closing adjustments

Segments (before Q3 2015)
Wireless
Wireline
DIRECTV
International

Segments (after 3Q2015)	
Wireless Wireline	Business Solutions
Wireline DIRECTV	Entertainment & Internet Services
Wireless	Consumer Mobility
International DIRECTV	International

3. Operating Expenses & EBITDA Margin

- Operating expenses are broken down by the same categories as revenues: Wireless, Wireline, DIRECTV, International, and Other
- Please forecast EBITDA margins for each of Wireless, Wireline, International, and DIRECTV as a percentage of the corresponding segment revenue; note that historically these percentages have varied, but you should look for guidance from management and other sources on how these items are expected to converge over the medium to long-term.
- Operating expenses are calculated by backing out EBITDA from Revenues.

4. Non-Operating Income

- Primary component of non-operating income is equity in net income of affiliates. This has been estimated for you based on AT&T's subsequent financial reporting and does not need to be modified in the template.

5. Working Capital – Accounts Receivable, Accounts Payable and Inventories

- Working Capital components should be forecast as a percent of revenue (Accounts Receivable, Other Current Assets) or operating expenses (Inventories, Accounts Payable & Accrued Liabilities, Prepaid Expenses) as typically, they are expected to vary in line with either revenues or expenses.
- Use approximate historical averages or trends based on the given historical periods.
- Over the forecast period, determine the steady-state number and apply a smooth transition from current period to steady state to avoid any lumpy changes.

6. PP&E, Depreciation & Capital Expenditures

- Net PP&E should be forecasted as a percentage of revenue.
- You are required to forecast depreciation of PP&E as one line item as a percentage of Net PP&E.
- Pay attention to management guidance on capex levels for the next few years by individual segment.
- Note that the acquisition of DirecTV resulted in a non-cash increase in PP&E which has been reflected in the operating assumptions (does not flow through the cashflow statement)

7. Taxes

- Tax calculations for large corporations are usually highly complex, but for purposes of financial modeling, you may assume one consistent average tax rate of 35% as proxy for the forecast period.

8. Minority Interest

- This is assumed to remain relatively constant but is based on the specific share and performance of the subsidiary in which the minority interest is owned. Estimates have been provided for you and should not be modified.

9. Acquisition of DIRECTV

- When modeling split cash / stock transaction, the component of the assets paid for with stock or by assuming debt held by the target, is not reflected on the cash flow statement; instead, the offsetting asset, liabilities and equity accounts are updated on the balance sheet without affecting the cashflow statement.
- The effects of AT&T's completed acquisition of DIRECTV have been modeled out for you and should not modified.

Financing Assumptions

We have summarized the debt structure given the number of individual tranches, but not that in the event of an actual transaction, each debt facility would likely need to be analyzed for specific prepayment and other terms.

10. Debt Drawdown and Repayment Summary

- The summary schedules in this section have already been populated to reflect the aggregation of AT&T's 100+ tranches of debt.
- When populating the cash flow statement and balance sheet, you will need to pull from this summary debt schedule for specific line items including the current portion of long-term debt.
- Note that any debt assumed does not need to be flown into the cashflow statement, but gets adjusted onto the balance sheet directly.
- The draws and repayment profiles for the Credit Facility for Target Debt Balance (Credit Facility) will be calculated in the section Target Debt Sizing; note that for modeling purposes the assumption is that the available amount under the Credit Facility will be increased as needed to maintain the target Net Debt to EBITDA multiple and debt cap will not be used.

11. Target Debt Balance and Cashflow Available for Dividends

- The calculations for the Cashflows Available for Period have been provided and determine how much cash from operations is available for distribution after issuances and repayments of general debt and draws or repayments of the Credit Facility to achieve the Target Debt Ending Balance.
- Drawings and repayments on Credit Facility are sized to a achieve a Target Debt Ending Balance determined by inputting a Total Debt / EBITDA multiple. Please note that the key debt metric used by AT&T is actually the Net Debt / EBITDA multiple which incorporates the cash ending balance in the ratio calculation and involves a circular reference in the model. To avoid complications competitors may have in relation to turning on circularity, the model has been set up to size the debt amount based on the **Total** Debt / EBITDA multiple although this input should be set to result in the desired **Net** Debt / EBITDA ratio. Please review annotations in the model for further instructions.
- You are required to assume an appropriate target cash balance.
- Dividends are paid with the cash available for equity after debt service and are sized based on a dividend payout ratio which can be equal or less than 100%, taking into consideration the company's investment and shareholder return objectives.

12. Common Equity

- Review management guidance and other sources to determine the pattern of equity issuances or repurchases expected during the forecast period.

14. Cash Flow Statement

- Link net income from the income statement to the cash flow statement, and adjust for noncash items as suggested by the cash flow statement schedule provided. As mentioned, do not expect the historical cash flow statement to flow with the items in the other historical statements, although it should in your forecast.
- Income statement items themselves have no direct effect on the balance sheet, except for earnings flowing to retained earnings under shareholders' equity and the cash balance changing based on the cash portion of net income.
- However, there will be working capital movements and other cash or non-cash changes between balance sheet accounts that need to be linked from the balance sheet to the cash flow statement.

15. Working Capital Changes

- Changes in working capital are calculated by comparing opening and closing balances on the balance sheet. An increase in accounts receivable, for example, will be recorded as a negative number on the cash flow statement under changes in working capital. Please ensure that total values should always be using a summation function so that any subtractions should be represented by negative values.
- *For reference only: Working capital changes are not reflected on the income statement*
- For instance, an increase in accounts receivable or inventories may not arise from an increase in sales, but simply from more people buying on credit or the business holding more inventories.

III. Discounted Cash Flow Valuation

1. Determining the Cost of Equity, Cost of Debt, and WACC

- Use the capital asset pricing model (CAPM) to derive the cost of equity.
- For the cost of debt, use the current cost of long-term debt as observed for recent AT&T issuance or that of similar companies.
- For the calculation of WACC, it is important to take into account the target gearing which typically can be estimated based on company or research guidance.

2. Determining the Free Cash Flows

- Start with EBIT after taxes and add back depreciation and amortization, capital expenditures, and net change in working capital.
- For net change in working capital, find the change in working capital and exclude change in cash.

3. Determining the Firm's Enterprise Value (EV)

- Discount free cash flows to the firm using the appropriate cost of capital.
- Keep in mind that the discount factor in each year needs to reflect a present value that relates the time of your valuation date relative to the fiscal year end.
- Apply the Gordon Growth Model and a steady-state terminal multiple to calculate the terminal value.

4. Implied Share Price

- After completing the DCF Valuation, determine the implied share price.

IV. Documenting Key Assumptions

In the Excel sheet "DCF – Assumptions Summary," please provide brief justification for each metric outlined in the table. You should include the most important drivers behind each assumption ranked by magnitude of impact with brief commentary on your selection.

Do not modify the formulas in the Key Metric column of the table. These numbers are calculated based on input assumptions in the previous sections of the model. The completed table should be copied and pasted into your final PowerPoint presentation. Please ensure to use Paste Special – Picture – Enhanced Metafile when pasting the model into your presentation.

After completing the base case scenario, create an upside case using a higher perpetual growth rate and keeping other assumptions constant. Find the Revenue CAGR and EBITDA CAGR for base case and upside case. Show the prices and CAGRs on the football field in the presentation.

B. Trading Comparables Analysis

Please refer to **Appendix A – Industry Overview and Appendix B – Comparable Company Background**. Preliminary research has been conducted for a number of companies in AT&T's competitor universe to give you a head start, but please conduct further research on your own to assess which comps are most appropriate to use in this valuation. Do not modify the spreadsheet in any way aside from cell contents. All numerical figures have been provided. Please aim to fit written responses within the width of the column provided.

Please note that differences in company-specific operating models and prevailing circumstances between a target company and its publicly-listed peers sometimes limit the direct explanatory power that can be observed from the peer group. You should ensure that your results are within a meaningful range and based on defensible choices of companies included in the comps set. Often the qualitative commentary on why a company might be relevant to the target is as meaningful as the quantitative result itself, especially as management determines how to position the company including through M&A activity.

This specific model allows differentiating between companies that operate in wireless, wireline and satellite TV segments. As AT&T is now involved in all three segments, a reasonable approach would be to use a Sum of the Parts analysis, i.e. apply different multiples to specific segments of AT&T's revenue and EBITDA. We have provided a breakdown of AT&T's revenue and EBITDA by segment in the model. You should follow the same approach for valuing AT&T based on total EBITDA or Revenue metrics for the combined entity as described below. Please only use the methods prescribed below to conduct your comparable valuation analysis.

Importantly, you should use the comparables analysis to note how the market values companies in this sector and what companies could be attractive acquisition targets.

EV / Revenue Valuation – Segmented: Use the Segmented EV / Revenue column to obtain a valuation for AT&T using EV / Revenue multiples. Apply the average NTM EV / Revenue multiple of the wireless companies you believe to be most appropriate to AT&T's NTM Revenue derived from its Wireless segment. Similarly, apply the average NTM EV / Revenue multiple of the wireline and satellite companies you believe to be most appropriate to AT&T' NTM Revenue derived from its respective segments. We have provided the AT&T metrics for this analysis. Following this procedure, you should be left with three separate implied enterprise values for AT&T's Wireless and Wireline segments, respectively. Adding the three implied enterprise values will result in an implied enterprise value for the entire company.

EV / EBITDA Valuation – Segmented: Use the Segmented EV / EBITDA column and apply the same methodology as the above Sum of the Parts analysis to obtain a valuation for AT&T using EV / EBITDA multiples.

EV / Revenue Valuation – Combined Entity: Use the Combined Entity EV / Revenue column to obtain a valuation for AT&T using EV / Revenue multiples. Apply the average EV / Revenue multiple of the companies you believe to be most appropriate as a whole to AT&T's Total NTM Revenue.

EV / EBITDA Valuation – Combined Entity: Use the Combined Entity EV / EBITDA column and apply the same methodology as the above Combined Entity analysis to obtain a valuation for AT&T using EV / EBITDA multiples.

Part I

Complete the “Comps - Model” tab in the attached Excel spreadsheet by filling in the blank columns using appropriate formulas.

1. All necessary financial information has been given to calculate the multiples and metrics shown. You should not have to consult any other documents to get the pertinent information necessary to complete the analysis.
2. Do not update any share prices, including AT&T’s.
3. Use formulas only and not hardcodes, i.e. =H6/I6 and not =7560.4/619.1 or 2.155.
4. All forward estimates from which to calculate valuation metrics have been provided, including for AT&T
5. If any valuation metric (e.g. EV / Revenue, P / E) is less than zero, express it on the output sheet as ‘neg’.

Part II

Complete the “Comps - Valuation” tab in the attached Excel spreadsheet as per the instructions below. Populate the highlighted cells only.

Segmented Sum of the Parts and Combined Entity Valuation using Broad Comps Set

1. Please review publicly available information to gain an understanding of each company and determine whether it should be included in the set of comparables used to value AT&T.
2. For each comp, indicate whether you are choosing to apply that multiple to value AT&T by entering either a “0” (for “No”) or “1” (for “Yes”) in the “Inclusion?” column. Note that in some cases you may choose to include a company for calculating the EBITDA NTM multiple but not the Revenue NTM multiple or vice versa. Giving consideration to the limited number of peers that closely match the characteristics of AT&T, it is recommended that you start the analysis with a broader comps set and only discard obvious exclusions to arrive at a mean or median (you will need to change the formula and label) that is representative of a sufficient sample size.
3. Calculate an enterprise value and share price for AT&T based on your selection.
4. For each comp, explain in the “Relevance” column why you have chosen to include or exclude that multiple.
5. Please ensure that your commentary reflects the most important aspects in a concise manner. You will have additional opportunity to describe overall valuation themes in the presentation. Please ensure to use Paste Special – Picture – Enhanced Metafile when pasting the model into your presentation.

Additional

An additional comparable set is provided to assist you with your research into valuation trends of related industries including for your corporate finance analysis.

C. Precedent Transactions Analysis

Please refer to **Appendix D – Precedent Transactions.** Do not modify the spreadsheet in any way aside from cell contents. Written comments should not exceed the width of the column provided. Please conduct your own research to assess which of the transactions provided are most appropriate to use in this valuation.

Please bear in mind that acquisitions and divestitures often involve relatively unique and specific circumstances relating to the buyer, seller or both and as such the implied valuation can be fairly broad. Therefore, it is important to integrate these situation-specific factors into any conclusions derived from the available data. Also bear in mind that a purchaser has more control over the direction and structure of a target company than a minority investor in the secondary market.

This specific model allows differentiating between companies that operate in either wireless or wireline segments, or integrated across both. As AT&T is involved in both industries, a reasonable approach would be to use a Sum of the Parts analysis, i.e. apply different multiples to specific segments of AT&T's revenue and EBITDA. The relevant segmented breakdown of AT&T's revenue and EBITDA has been inserted in the template. You should follow the same approach for valuing AT&T based on total EBITDA or Revenue metrics for the combined entity as described below. Please only use the methods prescribed below to conduct your comparable valuation analysis.

As with comparables the analysis of precedents provides useful insights into the rationale for transactions in the space and how the market reacted to them, which is critical developing an M&A strategy for your client.

EV / Revenue Valuation - Segmented: Use the Segmented EV / Revenue column to obtain a valuation for AT&T using EV / Revenue multiples. Apply the average LTM EV / Revenue multiple of the wireless companies you believe to be most appropriate to AT&T's LTM Revenue derived from its wireless segment. Similarly, apply the average EV / Revenue multiple of the wireline and satellite companies you believe to be most appropriate to AT&T's LTM Revenue derived from its respective segments. We have provided the AT&T metrics for this analysis. Following this procedure, you should be left with three separate implied enterprise values for AT&T's wireless, wireline and satellite businesses, respectively. Adding the three implied enterprise values will result in an implied enterprise value for the entire company.

EV / EBITDA Valuation – Segmented: Use the Segmented EV / EBITDA column and apply the same methodology as the above Sum of the Parts analysis to obtain a valuation for AT&T using EV / EBITDA multiples.

EV / Revenue Valuation – Combined Entity: Use the Combined Entity EV / Revenue column to obtain a valuation for AT&T using EV / Revenue multiples. Apply the average EV / EBITDA multiple of the companies you believe to be most appropriate as a whole to AT&T's total LTM Revenue.

EV / EBITDA Valuation – Combined Entity: Use the Combined Entity EV / EBITDA column and apply the same methodology as the above Combined Entity analysis to obtain a valuation for AT&T using EV / EBITDA multiples.

Part I

Complete the “Precedents - Model” tab in the attached Excel spreadsheet by filling in the highlighted cells with the appropriate figures and formulas as per the instructions below:

1. Finish filling in the Implied EV, EV / LTM Revenue, EV / LTM EBITDA columns based on the financial data given in Appendix D.
2. If any valuation metric (e.g. EV / Revenue, P / E) is less than zero, express it on the output sheet as ‘neg’.
3. Complete the analysis by filling in the average and median multiples for EV / LTM Revenue and EV / LTM EBITDA.
4. You will be evaluated strictly on the basis of the output pasted into your presentation. Please ensure to use Paste Special – Picture – Enhanced Metafile when pasting the model into your presentation.

Part II

Complete the “Precedents - Valuation” tab in the attached Excel spreadsheet as per the instructions below. Populate the highlighted cells only.

1. For each precedent, indicate whether you are choosing to apply its multiple to value AT&T by entering either a “0” (for “No”) or “1” (for “Yes”) in the “Yes / No” column.
2. For each precedent, explain in the “Relevance to Target Valuation” column why you have chosen to include or exclude that multiple.
3. Calculate an enterprise value and share price for AT&T based on your selection.
4. As with the comps data, you will be required to explain and/or qualify the relevance of your analysis to the valuation of the target company.
5. Please ensure that your commentary reflects the most important aspects in a concise manner. You will have additional opportunity to describe overall valuation themes in the presentation. Please ensure to use Paste Special – Picture – Enhanced Metafile when pasting the model into your presentation.

D. Levered Finance Analysis

In light of its recent major acquisition of DirecTV, AT&T is requesting a review of it's financial capacity as AT&T wishes to retain the flexibility to enhance its business platform through one or more acquisitions.

For this analysis, you are asked to use the template provided, to perform a simple analysis on how you would propose to fund $20bn of additional acquisitions / investments in the next year. For purposes of this initial analysis, you have further been asked to assume that the investment will follow a similar revenue and EBITDA profile as the remaining core business in terms of capital expenditures, growth rates, margins and upfront costs. These operating assumptions around the profitability of the investment have been provided and should not be modified.

The spreadsheet tool is set up to assess the impact of various funding parameters including:

- **Debt Funding Amount**
- **Equity Funding Amount**
- **Interest Rates**
- **Repayment of Debt Principal:** note that this is not a private sponsor-funded buyout so the transaction debt does not necessarily need to be repaid in full over the forecast period, depending on the debt target of the parent
- **Debt Sizing Ratios**
- **Per Share Return Metrics**
- **Valuation Multiple**: This multiple should be adjusted once the most optimal capital structure has been determined; in essence it determines what premium AT&T could pay to still make a particular deal with these characteristics work
- **Outputs:** Please paste the appropriate model outputs for the optimized capital structure with the highest possible multiple in the appendix of the presentation

Given the recent acquisition of DirecTV, there will likely be some constraints AT&T will be pushing against if they were to make another or a series of major investments in the $10b+ range. Please explain these constraints and which ones you would try to push to get to the most optimal outcome.

Once you have optimized the capital structure, please also note the upper end of the EV/EBITDA range, which you think AT&T could pay for an acquisition with the operating parameters provided. Note that for purposes of this analysis, the spreadsheet keeps the purchase price fixed, and lowers the EBITDA profile instead for the same purchase price.

Note that for the discussion with AT&T, a well-developed understanding of qualitative factors will likely be more important that the numerical example from the spreadsheet

E. Strategic Transaction Advice

This topic should be addressed in full in the presentation but drawing on the data and analysis performed as part of the work described above. This should be the punchline and culmination of the analysis performed, and ultimately what your team would be hired for to advise on and execute (and therefore get paid).

When you put forward a recommendation, please keep in mind that you are speaking to corporate executives that know the space and their company better than you. As such, you need to make sure you know the competitive industry dynamics, business model, past corporate actions and objectives of all stakeholders involved, when forming your recommendation.

You should assess the company's requirement from a strategic, financial and operational perspective, always keeping in mind how to create value for the ultimate shareholders, but also the motivations of senior management, which likely you will be speaking with first. Also make sure you understand what financial or other constraints exist and how to optimize within those constraints.

Please also provide some thoughts on how AT&T can differentiate its business model compared to its competitors and maintain its market position.

F. Presentation

While you prepare the valuation model and research the company, prepare a PowerPoint presentation to send to the client ahead of a meeting. The presentation should be 20-30 pages in length, including the cover page. Please take the initiative to familiarize yourself with the slide layouts, charts and diagrams commonly used in the investment banking industry. Please ensure to use [Paste Special – Picture – Enhanced Metafile] when pasting all model outputs into your presentation. The presentation should cover the topics below:

Executive Summary
Company Overview
- Company Overview
- Business Model and Operating Analysis
- Liquidity and Debt Capacity
- Shareholder Ownership
- Competitors

Valuation
- Historical Share Price Performance
- Valuation Overview, Including Football Field
- Valuation Analysis
- Comparables Overview
- Precedents Overview
- DCF Overview

Levered Finance Analysis
- Levered Finance Assumptions, Impact, and Affordability

Transaction Opportunities
- Strategic Review and Opportunities: Strategic goals that AT&T could pursue through M&A (e.g. acquisition of content) or other types of corporate finance transactions; identify company and industry characteristics which might favor certain types of transactions
- Transaction Recommendations: 3 transaction recommendations for AT&T, with rationale, considerations, and 1-2 specific examples of each, as well as high-level expected impact on valuation. Please rank each recommendation beginning with the most optimal, and dedicate one slide to each recommendation. In addition, include a further slide which describes in less detail 2 additional transactions which may also be favorable

Appendix I: Team Overview:
- An introduction of team members, including photos, education and other credentials

Appendix II: Model Outputs [Important]
- You are required to submit the model output page which has been formatted in the model in the slide format in **Appendix C – Model Output Template**; the required ranges of values are bordered by blue lines; please ensure that you include each required model output slide as an appendix to your presentation
- To paste the outputs into the slides, select the blue-bordered areas in Excel, hit ctrl+c, and then once in PowerPoint, select alt+h+v+s to Paste Special and select Picture (Enhanced Metafile); then size the picture to fill out most of the slide (use Guides in PowerPoint, shift+F10+i, to ensure the alignment is the same on each slide)

5. Rules & Regulations

Case

1. Competitors are not permitted, under any circumstances, to reprint or disclose the case without the written consent of the Case Committee.

2. Each team is expected to present their original analysis.

3. Any indication of plagiarism will result in disqualification of the team, at the discretion of the Judges.

4. Teams may not solicit professional help to solve the case.

5. All Excel sheets must be enclosed with the respective formulae (VBA will not be allowed).

6. All teams must follow the template provided and adhere to the maximum page limit.

Judging & Advancement

1. The First Round Case must be submitted online through the NIBC Competitor Portal by **11:59 PM PST on November 25th, 2015**.

2. After the First Round Case submission, NIBC's First Round Judging Panel will carefully evaluate each submission according to the judging criteria.

3. A minimum of 24 Undergraduate and 24 Graduate teams will be selected to compete in the Second Round held on March 22nd to 24th, 2016 in Vancouver, Canada. Teams should be prepared to arrive in Vancouver on March 21st, 2015, with specific details to be confirmed at a later date. Please contact Karsten Lee at Karsten.Lee@nibc.ca should you have any concerns. Team leaders will be notified of their teams' advancement by January 1st, 2016.

4. Teams must then confirm their intention to compete within one week of receiving this notification by paying the Advancement Fee of $300 per competitor via the NIBC website. If any team member fails to submit the Advancement Fee by the deadline, the team with the next highest score in the respective Undergraduate or Graduate category will advance instead.

Ethical Standards Form and Resume Submission

1. The deadline to submit the Ethical Standards Form and each team members' resumes through the NIBC Competitor Portal is Tuesday, October 27th, 2015 by 11:59 PM PST.

2. Please ensure that resume documents are in PDF format.

First Round Case Submission

1. Late submissions and submissions that do not adhere to the specified format will not be evaluated.

2. Your submission should consist of three files: an Excel spreadsheet, a PowerPoint presentation and a PDF version of the presentation. These may be submitted in either the MS 2007, 2010, or 2013 document formats.

3. The First Round Case must be submitted online through the NIBC Competitor Portal by **11:59 PM PST on November 25th, 2015.**

4. Hardcopies of the case must also be submitted, which will be forwarded to the investment banks conducting the grading process. Although the hardcopies will be submitted to the grading team, please note that submissions will be evaluated based on content. There are two options for hardcopy case submission:

    - **Mailed submission:** 5 hard copies of the presentation and memorandum must be received by December 2nd, 2015. Presentation needs to be double-sided and bound; non-commercial printing is acceptable. Mailed submissions must be postmarked no later than November 25th, 2015. Please mail your printed copies to:

        Karsten Lee
        National Investment Banking Competition 2016 - Suite 170
        422 Richards Street
        Vancouver, BC, Canada V6B 2Z4

    - **Electronic submission and printing via NIBC ($30):** The payment link will be provided prior to the submission deadline.

Participating Schools

Canadian Schools

- SAUDER School of Business, University of British Columbia
- Ivey
- Queen's School of Business
- Rotman School of Management
- Schulich School of Business, York University
- University of Waterloo
- Desautels Faculty of Management
- Laurier Business & Economics
- DeGroote School of Business
- Concordia University John Molson School of Business
- Ted Rogers School of Management Ryerson University
- HEC Montréal
- École de gestion Telfer School of Management
- University of Alberta School of Business
- Haskayne School of Business, University of Calgary
- Beedie School of Business, Simon Fraser University
- Edwards School of Business, University of Saskatchewan
- Dalhousie University, Inspiring Minds, Rowe School of Business
- Asper School of Business
- Université Laval
- Sprott School of Business
- University of Victoria, Peter B. Gustavson School of Business
- UNBC University of Northern British Columbia
- University of New Brunswick UNB

US Universities

- Wharton, University of Pennsylvania
- Stanford Graduate School of Business
- Yale University
- University of California Berkeley, Haas School of Business
- Columbia University
- MIT Sloan Management
- NYU Stern
- Chicago Booth, The University of Chicago Booth School of Business
- Johnson, Cornell University
- Dartmouth
- Brown
- Northwestern University
- Michigan Ross School of Business
- Duke University
- University of Notre Dame, Mendoza College of Business
- Krannert School of Management, Purdue University
- Boston University
- UCLA Anderson School of Management
- Georgetown University McDonough School of Business
- Georgia Tech Ernest Scheller Jr. College of Business
- Johns Hopkins Carey Business School
- UC Irvine
- Washington University in St. Louis, Olin Business School
- Ohio State University Fisher College of Business
- ASU W. P. Carey School of Business, Arizona State University
- The University of Iowa Tippie College of Business
- BYU Marriott School of Management
- Wisconsin School of Business
- Carlson School of Management, University of Minnesota
- W Foster School of Business
- Pepperdine University Graziadio School of Business and Management
- Georgia State University J. Mack Robinson College of Business
- The University of Georgia Terry College of Business
- Whitman School of Management, Syracuse University
- Simon Graduate School of Business, University of Rochester
- David Eccles School of Business, The University of Utah
- The University of Texas at Austin McCombs School of Business
- UF Warrington College of Business Administration, University of Florida
- Villanova School of Business
- University of San Diego School of Business Administration
- University of Houston C. T. Bauer College of Business
- FIU Business, Florida International University
- Boston College
- Daniels College of Business, University of Denver
- Drexel University College of Business LeBow
- University of Oregon Lundquist College of Business
- University of Arkansas
- Chapman University

International Schools

- IE Business School
- HEC Paris
- Nyenrode Business Universiteit
- NUS National University of Singapore
- 香港大學 The University of Hong Kong
- The University of Melbourne
- SMU Singapore Management University
- Oxford Saïd Business School
- University of Cambridge Judge Business School
- London Business School
- Universidad de los Andes
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About NIBC

Founded in 2007, the National Investment Banking Competition & Conference (NIBC) is an established organization which brings together students from 100 universities and 150 professionals in an annual Case Competition and Conference which run parallel to each other. In 2015, the Competition attracted 379 competing teams comprised of 1435 Undergraduate and Graduate students from top schools across North America with the finalists competing in the Final Round in January 2015 in front of over 300 students and 150 professionals attending the Conference. With the assistance of a committed Board of senior finance professionals, NIBC has become one of the most comprehensive and interactive investment banking events catered to students in North America and serves as one of the best opportunities to learn about investment banking and the capital markets.

nibc.ca

Organizing Team

Karsten Lee (Director, Competition)
Nicole Ponto (Director, Conference)
Hovy Qiu (Director, Case Development)
Joseph Liu (Director, Marketing)
Caitlyn Yu (Director, Internal)
Olga Kubliy (Director, Training)
Jamie Farrell (Associate, Competition)
Jessica Ljustina (Associate, Case Development)
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Michael Tam (Associate, Conference)
Josh Dogor (Associate, Marketing)
Jonathan Young (Associate, Media)
Lucien Lu (Associate, Media)
Elisa Liu (Associate, Internal)

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Tracey McVicar (Managing Partner, CAI Private Equity)
Kathy Butler (Managing Director, CIBC World Markets)
Chris Tsoromocos (Vice-President, Stern Partners)
Rizvan Dhalla (Managing Director, Morgan Stanley)
Harry Pokrandt (Former Managing Director, Macquarie Capital)
Jordan Anderson (Portfolio Manager, bcIMC)
Scott Powell (Managing Director, North America, MDA Training)

Case Committee

Philip Chua (Associate, Macquarie Capital)
Michael Scott (Vice-President, RBC Capital Markets)
Gint Austrins (Research Analyst, Global Securities)
Amardeep Chandi (Associate, KKR)
Martin Haakonsen (Associate, TD Securities)
Brenden Lee (Analyst, Evercore)
Jacky So (Analyst, Barclays)
David Lam (Analyst, Macquarie Capital)

Contact Information

The NIBC Organizing Team would like to thank you for participating in NIBC 2016. For further enquiries, please contact the Competition team and copy all team members below.

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NIBC 2016 First Round Case

Appendix A - Industry Overview

NIBC | NATIONAL INVESTMENT BANKING COMPETITION & CONFERENCE

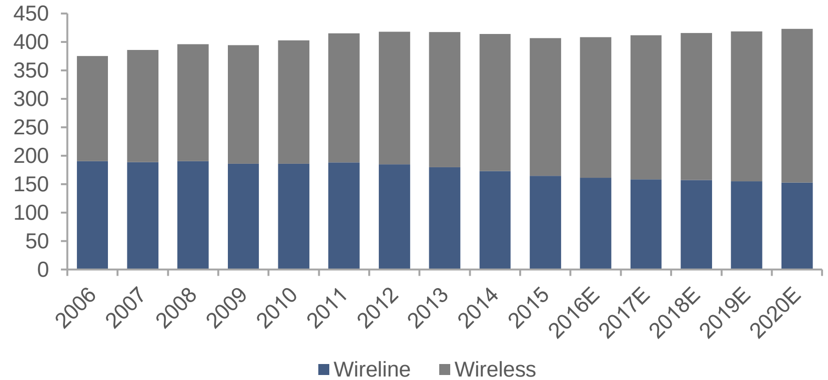
Overview of Telecom Industry

$1.6tn global industry with wireless segment leading industry growth; market roughly split between Asia Pacific and the Americas plus EMEA

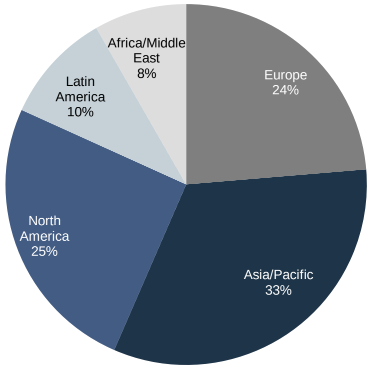
Industry Overview		
US Revenue by Segment (2015)		
	Revenue	**Forecasted CAGR (5yr)**
Wireless	$247.6bn	2.2%
Wireline	$175.6bn	-1.4%
US Industry Characteristics (2Q 2015)		
Wireless Subscribers	382.6m	
Net Debt/EBITDA	3.6x	
Net Debt/EV	0.5x	
EBITDA margin	28.0%	
EV/EBITDA	6.4x	
Cash Ratio	0.4x	
Return on Assets	2.0x	
Market share held by 4 majors	98.9%	
Global Industry Profile (2014)		
Total Revenues	$1.6tn	
Forecasted CAGR (3yr)	2.6%	
Wireless Subscribers	7.1bn	

- Wireless subscribers are rapidly growing in emerging markets and estimated to reach saturation in 2020
- Global focus will be on growing ARPU, high-speed data through 4G rollout and densification

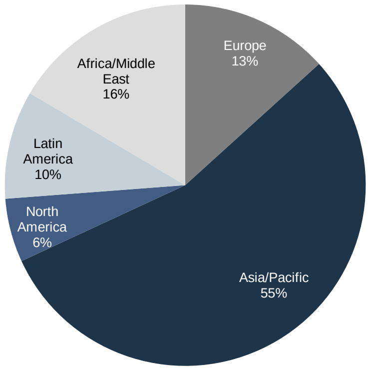
US Telecom Industry Revenues by Segment ($bn)



Global Share of Revenues and Wireless Subscribers



Global Share by Revenue (2014)

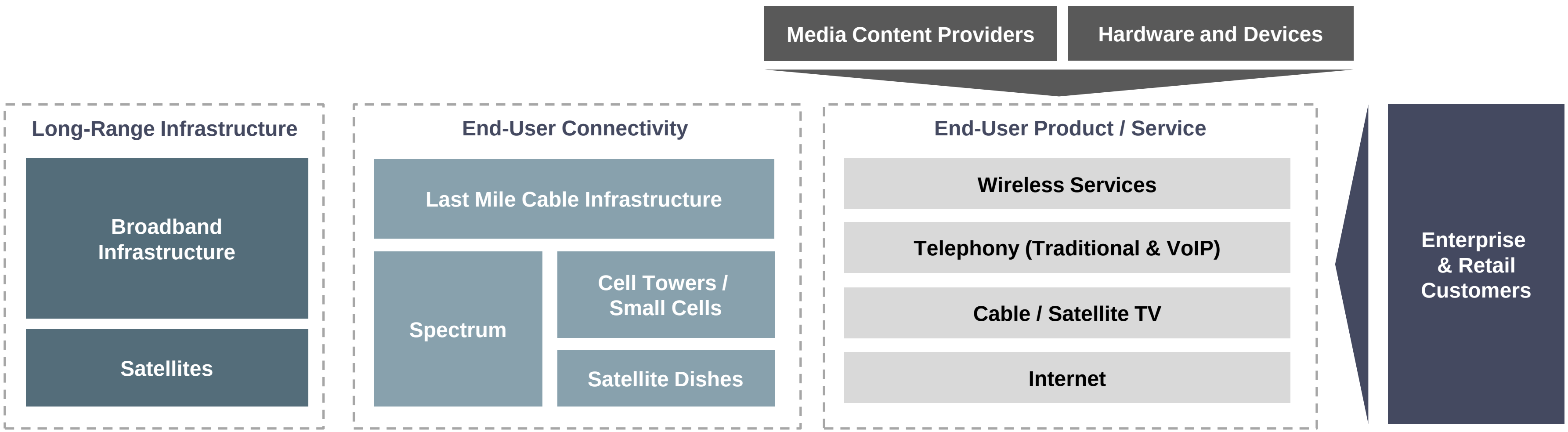


Global Share by Wireless Subscribers (2014)

Source: Bloomberg, IBISWorld, IDC

Telecom Industry Value Chain

Integrated telecom players (AT&T, Verizon) participate in almost all steps across the value chain while smaller carriers (T-Mobile, Sprint) focus on providing wireless services while outsourcing other functions



- **Broadband networks transfer information – voice and data – over long distances**
  Wireline carriers (AT&T, Verizon)
- **Satellites relays information using electromagnetic waves**
  Satellite TV providers (DirecTV), satellite telecom providers (EchoStar)

- **Last mile links a telecom network to a customer's premise**
  Wireline carriers (AT&T, Verizon)
- **Spectrum allows wireless devices to communicate with cell towers**
  Wireless carriers (AT&T, Verizon, T-Mobile)
- **Cell towers and small cells provides wireless coverage over radio signals**
  Wireless carriers (AT&T, Verizon), tower companies (American Tower)
- **Satellite dishes receive electromagnetic signals from satellites**

- **Wireless carriers provide voice and data services to consumers' mobile devices**
  AT&T, Verizon, T-Mobile, Sprint
- **Wireline carriers offer telephony, internet and TV services through wired infrastructure**
  AT&T, Verizon, CenturyLink
- **Satellites can provide TV programming to consumers and telecom connection to broadcasters and telecom providers**
  DirecTV, Dish, EchoStar, Intelsat

Revenue Streams for Telecom & Cable

Telecom wireline players compete directly with cable companies , particularly in wired video, internet and voice services

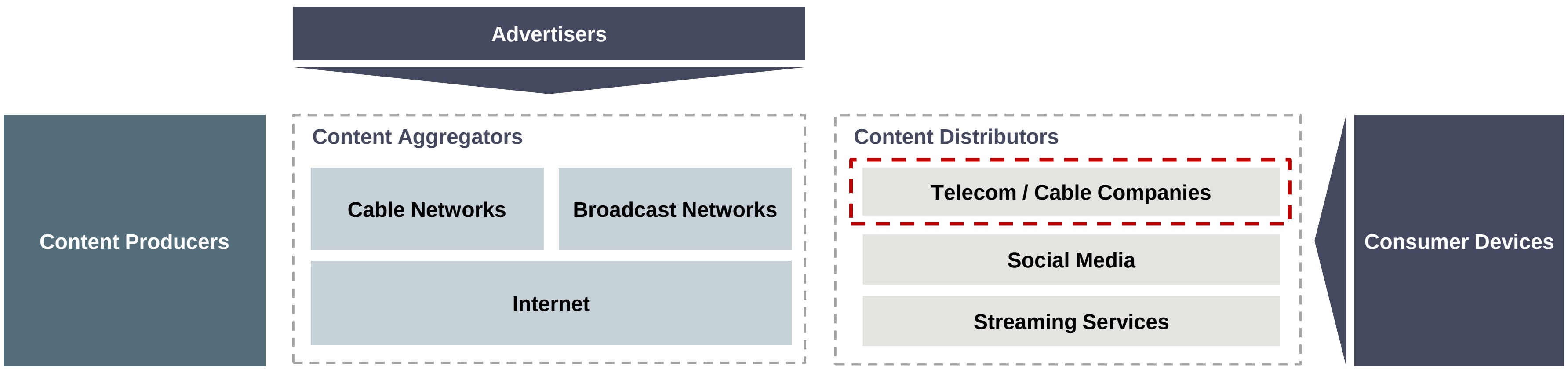
- The core segments of telecom companies can be broken into **wireless and wireline services**, differentiated by the channel through which services are delivered to consumers
- In the wireline segment, telecom companies compete with cable companies for residential and business clients, often bundling voice, broadband and video subscription – called **triple play**
- Adoption of new technology, including VoIP and IPTV, continues to change the competitive landscape between telecom and cable

Telecommunications (US Revenues: $423.2bn)		Cable (US Revenues: $115.9bn)		
Wireless 59% of US Telecom	**Wireline** 41% of US Telecom	**Residential Video** 46.6% of US Cable	**Residential Internet** 27.4% of US Cable	**Residential Voice** 7.7% of US Cable
▪ Sell subscription plans for voice and data (prepaid or postpaid) ▪ Provide advanced communication services such as Wireless Local Area Networks (WLAN) ▪ Sell equipment such as phones, notebooks and tablets	▪ Provide internet access ▪ Provide traditional and VoIP telephone services ▪ Provide television services through IPTV ▪ Provide advanced communication services to businesses	▪ Provide basic programming and subscriber packages ▪ Provide value-added services such as video-on-demand and pay-per-view	▪ Provide internet access	▪ Provide traditional and VoIP telephone services ▪ Provide value-added services such as voice mail and caller ID

Source: Bloomberg, IBISWorld

Role of Telecom within Media Industry

Some media conglomerates focus on producing and aggregating content (Disney) while others operate significant telecom / cable divisions to provide internet and TV bundles (Time Warner Cable prior to spin-off)



- **Content producers create television programming or motion picture.** *TWC, Walt Disney, 21st Century Fox*
- **Monetization:** Generated via selling content rights to networks or in the case of film studios, exhibitions in movie theatres

- **Broadcast networks deliver audiovisual content via over-the-air transmission.** *NBCUniversal, Fox Broadcasting, Walt Disney*
- **Cable networks deliver television programming through coaxial cables to paying subscribers.** *Comcast, AT&T, TWC, COX*
- **Partnership with Distributors:** Generally in long duration contracts with distributors and generate revenue through advertisements aired during broadcasts
- **Direct-to-Consumer:** At times, skip distributors and sell directly to consumers via DVDs, downloadable media and internet platforms

- **Distributors provide infrastructure and platforms through which media reaches consumers.** *Cable and satellite TV operators (Comcast), telecommunication companies (Verizon), social media (Facebook), streaming services (Netflix)*
- **Bundling:** Distributors often combine media content with other offerings such as voice telephony and broadband

Industry Regulation

To protect consumer interest, the FCC regulates many aspects of the US telecom industry, including competition, intrastate pricing and foreign communications

- The industry is **highly capital-intensive** and market forces drive players to consolidate, resulting in a need for the Federal Communications Commission (FCC) to regulate competition in the industry
- In the past, FCC have blocked consolidation and imposed conditions on transacting parties to protect consumer interest
  - 2012 – Approved Verizon's acquisition of spectrum on the condition that Verizon exchange spectrum with smaller carrier T-Mobile
  - 2011 – Ruled against the proposed merger between T-Mobile and AT&T

- **Spectrum** is a finite resource and is highly sought after by wireless carriers for network coverage and capacity
- FCC regulates the distribution of spectrum licenses, managing auctions and providing savings to smaller carriers to encourage competition
- Carriers are estimated to spend $89.9bn at the two auctions in 2015 and 2016

FCC Regulation in US Telecom

Competition

- Allocates wireless spectrum through auctions
- Promotes competition and enforces antitrust laws

Pricing

- Regulates intrastate and international communication prices between carriers
- Protects consumers against discretionary pricing

Universal Services

- Provides subsidies and funds to telecom companies to develop services in rural and remote areas

Policy

- Provides a broader understanding of broadband direction through National Broadband Plan

Industry Trends

Wireline faces significant headwinds as Wireless is shaped by increasing data consumption and competition among carriers

Wireless	▪ **Wireless Saturation:** Wireless penetration exceeds 100% in US; as wireless markets becomes increasingly saturated, carriers shift their focus to growing Average Revenue Per User (ARPU) ▪ **Growing Data Usage:** Data consumption has grown 69% in 2014, driven by rising prevalence of smartphones, declining prices and growing internet traffic; data now comprises 46% of wireless revenue ▪ **Wireless Price War:** T-Mobile's aggressive campaign to attract customers from AT&T and Verizon has resulted in cuts to plan rates across the industry as well as promotions to cover customers' switching costs ▪ **Growing Spectrum Demand:** Increasing data traffic has also put a strain on network capacity; in order to maintain network quality / reliability, carriers require more wireless spectrum, driving up prices and hurting the bottom line of all carriers
Wireline	▪ **Declining Wireline Voice:** Segment is shrinking with customers migrating to wireless and VoIP services; telecom companies are focusing on broadband for households to alleviate cost pressure from shrinking voice subscriber base ▪ **Alternative to Wired TV:** Media companies such as Apple, Google and Netflix are offering TV services over the internet, which are substitutes to traditional cable TV ▪ **Triple Play Services:** With declining wireline, telecom companies are offering bundled triple play services (internet access, television and telephone) at a discount to retain customers ▪ **Fiber Optics Demand:** Broadband networks with fiber in the last mile show significant improvements in internet speeds compared to those with copper; since these networks have higher costs associated with them, only around 25% of households in the US have fiber access ▪ **Fiber to the Home / Fiber to the Node:** Fiber connection can be provided by installing fiber directly to the premise (more expensive, higher connection speed – focus of Verizon FiOS) or building fiber to the node and copper to the premise (cheaper, focus of AT&T U-verse) ▪ **Competition from Cable Companies:** Cable companies also provide voice and broadband services, appealing to consumers with media content, service bundles and upgraded infrastructure
Marketing / Media	▪ Carriers are competing more on price, reliability; some are offering no contract plans with financing available and are intensifying their marketing activities to entice customers to switch carriers ▪ **Acquiring Media:** Content acquisition is a customer retention and attraction strategy, used as a differentiating point between carriers; for example, Verizon's new Go90 Mobile Video Service offers full episodes of TV shows and music videos

Financial Analysis

Industry has traditionally been highly capital-intensive and leveraged while intense competition has hurt profitability for both segments and encouraged consolidation

Wireless	▪ **Capital Intensity**: Recurrent capital investment is required to expand existing networks, roll out new networks and obtain spectrum licenses, more than $100bn have been invested in the past 5 years ▪ **Financial Leverage**; Firms pressured to take on debt to finance network investments, spectrum bidding and corporate acquisitions; Net Debt / EBITDA, Net Debt / EV for major players are: Verizon (2.40x, 36%), AT&T (2.32x, 26%), T-Mobile (2.95x, 48%), Sprint (7.92x, 60%) ▪ **Revenue Growth:** In the five years to 2015, revenue grew 2.8% annually on average, driven by increasing popularity of smartphones, increasing data consumption and continued 4G network implementation ▪ **Profit Margin:** 25.2% in 2014, despite being hurt by intense competition for new subscribers and price war
Wireline	▪ **Capital Intensity:** Network expansions require a large upfront investment and large depreciation costs, substitution to fiber-optic requires additional investments ▪ **Financial Leverage:** Net Debt / EBITDA, Net Debt / EV of major players are: Verizon (2.40x, 36%), AT&T (2.32x, 26%), CenturyLink (3.11x, 58%) ▪ **Revenue Growth:** In the five years to 2015, revenue declined 1.8% annually on average, as alternative platforms including mobile, VoIP and satellite TV have substituted traditional wired services ▪ **Profit Margin:** 8.0% in 2014, industry is unable to pass on large fixed costs in the form of higher prices due to declining demand for traditional wired services
Markets	▪ **Developed Markets:** There is a trend of consolidation in the telecom industry given economies of scale versus high fixed costs and benefits of bundling different services; however, further consolidation has been limited due to competition regulations ▪ **Emerging Markets:** Due to the lack of copper and fiber optic infrastructure in emerging markets, satellite and wireless services have attained significant success; many markets are nearing 100% mobile penetration and increasingly demanding more sophisticated services

% US Wireless	% US Wireline
Verizon (36.6% - integrated) AT&T (30.1% - integrated) T-Mobile (13.4% - pure-play) Sprint (13.4% - integrated)	AT&T (33.9% - integrated) Verizon (22.2% - integrated) CenturyLink (4.1% - pure-play)

Source: Bloomberg, IBISWorld

Major Industry Players: Telecom Carriers

Business Model				
(US$m)	**Services**	**Wireless (LTM)**	**Wireline (LTM)**	**Geographic Focus**
VZ	Integrated	$91,342	$37,276	US
T[(1)]	Integrated	$75,259	$62,884	US, Latin America
TMUS	Wireless	$31,461	N/A	US, Europe
S	Integrated	$31,674	$2,698	US
CTL	Wireline	N/A	$17,822	US

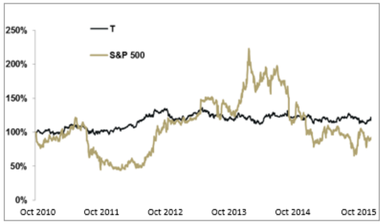
Operating Performance							
	Revenue	**CAGR(3yr)**	**CAGR(2yr)**	**EBITDA**	**CAGR(3yr)**	**CAGR(2yr)**	**Margin**
(US$m)	LTM	Historic	Forecast	LTM	Historic	Forecast	LTM
VZ	$130,558	4.3%	0.3%	$45,067	7.4%	0.9%	34.5%
T	$139,121	5.0%	8.1%	$42,269	4.5%	7.2%	30.4%
TMUS[(2)]	$31,461	86.4%	7.4%	$6,503	14.3%	20.8%	20.3%
S	$33,770	(0.7%)	(1.0%)	$3,743	9.6%	18.8	11.1%
CTL	$17,822	(0.9%)	0.0%	$6,616	(3.0%)	(1.2%)	37.1%

Capital Structure and Valuation							
(US$m)	**EV**	**Market Cap**	**Net Debt**	**Cash**	**Net Debt / EV**	**EV / EBITDA**	**P / E**
VZ	$297,407	$187,672	$108,143	$3,875	36%	6.6x	12.1x
T	$278,293	$207,535	$73,464	$8,603	26%	6.6x	13.3x
TMUS	$52,934	$33,630	$19,166	$5,315	36%	8.1x	44.2x
S	$49,019	$18,690	$29,655	$4,010	60%	13.1x	N/A
CTL	$36,104	$15,775	$20,543	$128	57%	5.5x	21.2x

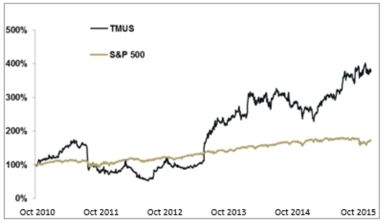
5-Year Share Price Performance

Verizon (VZ)

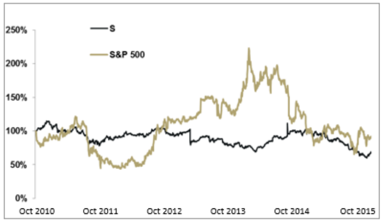
AT&T (T)



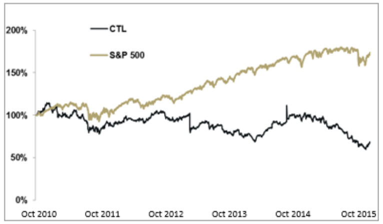
T-Mobile (TMUS)



Sprint (S)



CenturyLink (CTL)



(1) *Estimated segment revenue breakdown, video revenue from DirecTV merger categorized under wireline*
(2) *Historical CAGR inflated due to merger between T-Mobile and MetroPCS*

Source: Bloomberg as of Oct 26, 2015

Business Model: Telecom Carriers

	FY14 Revenue	FY14 EBITDA	Strategy	Strength	Weakness	Wireless	Media	Broadband
verizon	$127.1bn	$34.9bn	▪ Focus on utilization of the best technologies to create a superior customer experience at a premium	▪ Large customer base ▪ High ARPU ▪ Full US Coverage ▪ High reliability	▪ High amount of debt ▪ Network capacity concerns ▪ Losing customers to T-Mobile	▪ Best overall reliability in 45 of the 50 states ▪ Benefits of scale and early heavy investment into wireless spectrum and technology	▪ More reliable than cable services ▪ More HD channels, internet speeds allow for streaming and 4k video	▪ Fastest internet speeds and a more reliable system
at&t	$132.4bn	$31.7bn	▪ Offer good service at affordable prices; keep up with competitors by matching their strategies	▪ Large customer base ▪ Large deployment of cable and wireless services; high reliability	▪ High debt ▪ Losing customers to T-Mobile	▪ Good speed and reliability ▪ Vast coverage and large asset base ▪ Greater scale	▪ Offers a much large selection of TV channels than Verizon's FIOS (Verizon's Fibre optic internet and TV offering) ▪ Priced cheaper than FIOS	▪ Offers better pricing and quicker setup than Verizon but has lower maximum speeds
T-Mobile	$29.6bn	$6.2bn	▪ Strong focus on differentiation from the main carriers in the US in order to pull customers away from the larger carriers	▪ Dramatically growing its customer base through its successful marketing campaign	▪ Less reliable network than the major carriers and less coverage	▪ Branded as an un-carrier, attempting to differentiate itself by eliminating contracts and introducing innovative features such as Wi-Fi calling ▪ Offers unlimited data on all plans and slows down network speeds after customers go over their limit	▪ N/A	▪ N/A
Sprint	$34.5bn	$3.5bn	▪ Turn the business around through pursuing differentiation points such as price and offerings and improving its service in order to regain customer loyalty	▪ Competitive pricing	▪ Poor network performance; shrinking customer base	▪ Currently focused on improving customer service and wireless network ▪ No prevalent competitive advantage	▪ N/A	▪ N/A

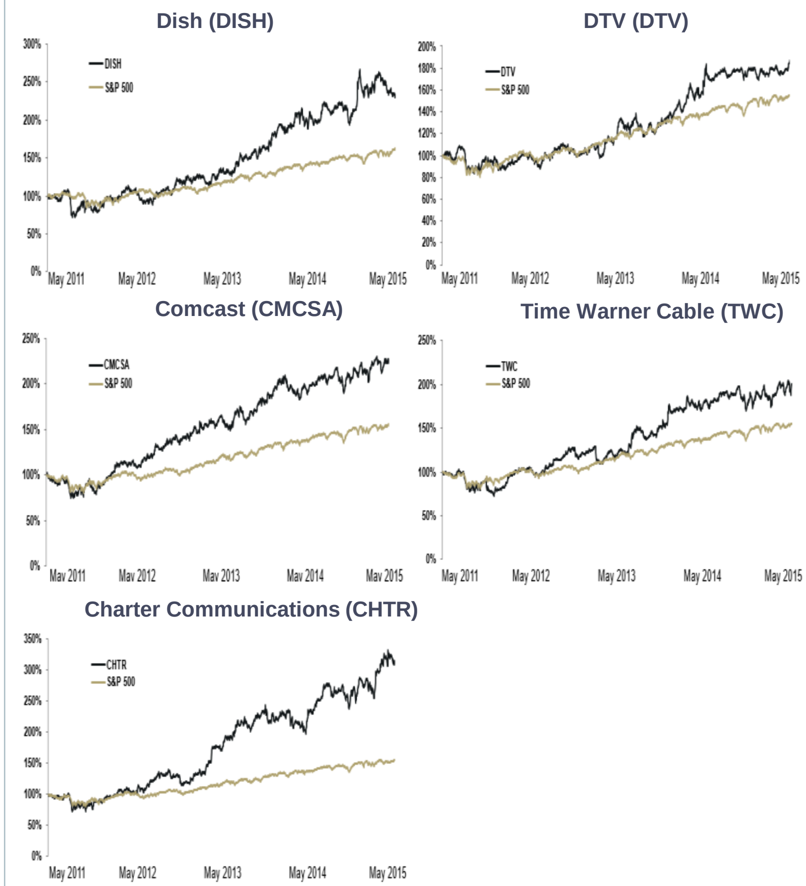
Major Industry Players: Cable and Satellite TV

FY2014 Revenues ($m)			
Revenue Segments	**TV**	**Phone**	**Broadband**
DISH	$14,640	N/A	N/A
DTV	$33,548	N/A	N/A
CMCSA	$31,475	$3,671	$11,321
TWC	$10,002	$1,932	$6,428
CHTR	$1,134	$139	$670

Operating Performance							
	Revenue	**CAGR (5yr)**	**CAGR (1yr)**	**EBITDA**	**CAGR (5yr)**	**CAGR (3-5yr)**	**Margin**
(US$m)	LTM	Historic	Forecast	LTM	Historic	Forecast	LTM
DISH	$14,773	5%	3%	$3,085	(5.7%)	10.3%	7.58%
DTV	$33,548	6.65%	(3.28%)	$8,258	(5.13%)	3.3%	8.72%
CMCSA	$71,119	13.97%	5.21%	$20,984	9.10%	6.33%	12.38%
TWC	$23,207	8.96%	16.85%	$8,073	4.6%	5.75%	8.64%
CHTR	$9,268	5.2%	7%	$3,080	4.5%	4.0%	(2.45%)

Capital Structure and Valuation							
(US$m)	**EV**	**Market Cap**	**Debt**	**Cash**	**Debt/EV**	**EV/EBITDA**	**P/E**
DISH	$44,299	$31,479	$13,910	$7,105	33%	13.2x	26.9x
DTV	$63,492	$46,816	$19,485	$4,635	38%	7.7x	16.1x
CMCSA	$195,143	$150,667	$47,133	$3,910	24%	7.8x	18.2x
TWC	$72,586	$49,843	$25.656	$707	32%	9.4x	26.9x
CHTR	$32,712	$18,880	$41,250	$3	64%	10.4x	N/E

5-Year Share Price Performance



Notes: Charts and figures are for illustration only; for more up-to-date data, please refer to comp set
EV/EBITDA and P/E are calculated based on NTM results

Business Model: Cable & Satellite TV

	FY14 Revenue	FY14 EBITDA	Strategy	Strength	Weakness	Pay-TV Programming	Broadband	Media
dish	$14.6bn	$2.9bn	▪ Provide low-cost packages and exclusive content through satellite television	▪ Strong presence in Latin America ▪ Exclusive programming	▪ Lower satisfaction among customers and employees	▪ Provides the most affordable satellite TV plans ▪ Offers mobile satellite TV services	▪ Markets a satellite broadband service, targeting rural residents underserved by wireline broadband	▪ N/A
DIRECTV	$33.3bn	$8.2bn	▪ Continuously improve customer satisfaction through strengthening bundle offers and service quality ▪ Improve entertainment experience both inside and outside of home	▪ Large subscriber base and strong customer satisfaction ▪ Cross-selling capacity with AT&T	▪ Regulatory pressure to improve value to consumers as a result of the merger with AT&T	▪ Offers out-of-market NFL games in addition to other exclusive sports content	▪ Bundles including broadband offered through merger with AT&T	▪ N/A
COMCAST	$68.8bn	$23.2bn	▪ Improve customer experience by hiring and training additional customer service representatives	▪ Highest signal quality ▪ Develop programming through NBC Universal	▪ Co-axial cable limits its ability to transmit services to a global market	▪ Nation's largest cable TV provider ▪ Reports one of the best signal quality due to continuous cable feed	▪ Offers nation's fastest internet and fastest Wi-Fi service	▪ Owns and operate a portfolio of news and entertainment television networks through NBC Universal
Time Warner Cable	$22.8bn	$8.2bn	▪ Build on recent momentum and drive subscriber growth in residential business ▪ Continue to scale business services	▪ Strong brand and large customer base	▪ Weak growth in ARPU, pushing margins lower	▪ Nation's second largest cable TV provider ▪ Large Video On Demand library	▪ Sole provider of traditional broadband service in several states	▪ N/A
Charter Communications	$9.1bn	$3.1bn	▪ Provide voice, internet access and other data services as a complete bundle	▪ Strong coverage in US ▪ Recent acquisitions and other initiatives poises to boost revenue	▪ Since its emergence from bankruptcy, yet to deliver full-year profit	▪ Launched Charter Spectrum, which delivers a video product with HD channels and Video On Demand	▪ Internet product faster than competition in the majority of their footprint	▪ N/A

Corporate Finance Activity

The competitive market today is the result of over two decades of corporate finance activity, with a strong consolidation trend in recent years, including acquisitions in the TV / media space

Sprint merges with Nextel ($36bn) *(consolidation, large-scale)*

SBC Communications acquires AT&T ($16.9bn) *(consolidation, large-scale)*

AT&T acquires BellSouth ($86bn) *(consolidation, large-scale)*

2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008

2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015

AT&T acquires DirecTV ($42bn) *(telecom / satellite TV)*

AT&T acquires Leap Wireless ($1.2bn) *(consolidation, mid-scale)*

SoftBank acquires Sprint ($21.6bn) *(conglomerate / telecom)*

T-Mobile merges with MetroPCS ($1.5bn) *(consolidation, mid-scale)*

Time Warner Cable acquires Insight Communications ($3bn) *(consolidation, mid-scale)*

EchoStar acquires Hughes Communication ($2bn) *(consolidation, mid-scale)*

CenturyLink Inc. merges with Qwest Communications ($12.2bn) *(consolidation, large-scale)*

Comcast acquires 51% of NBCUniversal ($6.5bn) *(cable operator / broadcast network)*

Verizon Wireless acquires Alltel ($22bn) *(consolidation, large-scale)*

Glossary

3G and 4G	These terms refer to third- and fourth-generation cellular wireless capabilities. A higher generation indicates a higher efficiency through the wireless network. The upgrade in wireless networks enables video chat, Internet TV, online games, video download and music streaming on wireless devices.
Broadband	In telecommunications, broadband means a wide range of frequencies over which information can be transmitted.
Bundling	‘Triple-play’ and ‘quad-play’ are ways that telecom companies package (bundle) their services. While they used to only offer home telephone service, they now bundle home phone, Internet connection, television and even cell phone service.
Coaxial Cable	A type of cable that has an inner conductor surrounded by a tubular insulating layer, surrounded by a tubular conducting shield. The dimensions of the cable are controlled to give a precise, constant conductor spacing, which is needed for it to function efficiently as a transmission line. Long distance coaxial cables was used in the 20^{th} century to connect radio, television and long distance telephone networks, but this has largely been superseded by later methods (fiber optics).
Fiber Optic	Fiber-optic communication is a method of transmitting information from one place to another by sending pulses of light through an optical fiber. The light forms an electromagnetic carrier wave that is modulated to carry information.
IPTV	Internet Protocol television is a system through which television services are delivered using the Internet protocol suite over a packet-switched network such as a LAN or the Internet, instead of being delivered through traditional terrestrial, satellite signal, and cable television formats. Unlike downloaded media, IPTV offers the ability to stream the media in smaller batches, directly from the source. As a result, a client media player can begin playing the data (such as a movie) before the entire file has been transmitted. This is known as streaming media.
Postpaid and Prepaid	These terms refer to billing methods employed by carriers. Postpaid are typically contract-based customers, also the majority of US cellular users. Prepaid requires no contract and the user pays for service in advance.
Spectrum	Wireless spectrum consists of electromagnetic radiation and frequency bands. Respective countries have their own wireless spectra with ranges up to 300 GHz. The wireless spectrum frequencies used in communication are regulated by national organizations, which specify which frequency ranges can be used by whom and for what purpose.
VoIP	Voice over Internet Protocol, is a method for taking analog audio signals, which turns users’ voices into digital data that can be transmitted over the Internet.
WLAN	Wireless local area network is a wireless computer network that links two or more devices using a wireless distribution method within a limited area

NIBC 2016 First Round Case

Appendix B - Comparable Company Background

NIBC | NATIONAL INVESTMENT BANKING COMPETITION & CONFERENCE

Company Background – Telecom Carrier
Verizon Communications

Verizon Communications

verizon

History
- Founded in 2000 post merger of Bell Atlantic Corp. & GTE Corp.
- Ownership: Vanguard Group Inc. (5.71%), Capital Research Global Investors (4.31%), Blackrock Institutional Trust Company (3.97%), State Street Corp. (3.89%)

Operations
- Largest wireless provider in the United States, limited to only enterprise solution services outside the US
- Composed of Wireless (69%) and Wireline (30%) revenue segments
- Cellphone services and Verizon FIOS, which provides internet, phone and cable services, are the main revenue generators for the company

Financial Stats/Performance
- Market Cap: $187.9bn
- FY15E Revenue: $131.4bn, EBITDA: $46.5bn
- Forecasted Revenue CAGR (2yr): .0.3%
- $112.3bn of debt, $4.1bn in cash and short term investments

Strategy
- Focuses on investments in technology to increase reliability, speed and capacity of its network
- Expanding state-of-the-art fiber-optic cable network while competitors use copper wires
- Priced higher than its competitors, which it makes up for in terms of higher speed offerings and a more reliable network

Corporate Finance Transactions
- Sold tower infrastructure to American Tower (2015): $5bn
- Sold wireline operations in 3 states to Frontier Communications (2015): $10.64bn
- Acquired Vodafone's 45% stake in Verizon Wireless (2014): $130bn
- Acquired EdgeCast Networks (2013): $350m

Structure
Separated into 4 departments:
- Domestic Telecom (Phone, cable and internet in the US)
- Domestic Wireless (Wireless services in the US)
- Information Services (Enterprise Solutions)
- International (Wireline and Wireless)

Company Background – Telecom Carrier
T-Mobile

T-Mobile

History	Operations
▪ Founded in 1994 as VoiceStream, renamed to T-Mobile in 2002 and merged in 2013 with MetroPCS ▪ Acquired in 2001 by Deutsche Telekom ▪ Ownership: Deutsche Telekom AG (65.7%), T. Rowe Price Associates (3.8%), Paulson & Co. (2.9%), Vanguard Group Inc. (1.4%)	▪ Nation’s largest provider of prepaid / 4th largest provider of postpaid service plans in the US ▪ 3rd party distributors include Walmart, Costco, Best Buy Mobile. ▪ Channel partners include Blackberry, Apple, Samsung, LG, Google
Financial Stats/Performance	**Strategy**
▪ Market Cap: $33.8bn ▪ FY15E Revenue: $33.0bn, EBITDA: $7.2bn ▪ Forecasted Revenue CAGR (2yr): 9.7% ▪ $24.5bn of debt, $5.3bn in cash and cash equivalents	▪ Un-carrier: dependable high-speed LTE, desirable devices, variety of pro-consumer services (contract freedom, unlimited data, device financing) ▪ Continued focus on retaining customers through churn reduction initiatives ▪ Provide best consumer experience, significant expenses towards acquiring/retaining high-quality customers
Corporate Finance Transactions	**Structure**
▪ Merged with MetroPCS (2013): $3.30bn ▪ Acquired SunCom Wireless Holdings Inc (2007): $2.39bn ▪ Acquired by Deutsche Telekom (2001): $35bn	▪ Operates as a single operating segment ▪ Service revenues (75.12%), Equipment revenues (23.41%), Other (1.47%)

Company Background - Telecom Carrier

Sprint Corporation

Sprint Corporation

History	Operations
▪ Founded in 1899 as the Brown Telephone Company by Cleyson Brown ▪ Merged with Centel in 1993 with focus on long distance, wireless and local services ▪ In 2013, SoftBank merged with Sprint Nextel Corporation under which Starburst II (name changed to Sprint Corporation) became parent company of Sprint Nextel Corporation (name changed to Sprint Communications); Softbank owns 79%	▪ 2 business segments: Wireless and Wireline ▪ Wireless segment represents 94% of revenue, offering a comprehensive range of wireless and wireline communications products and services ▪ Wireline represents 6% of revenues, provides a broad suite of wireline services
Financial Stats/Performance	**Strategy**
▪ Market Cap: $19.4bn ▪ FY15E Revenue: $34.7bn, EBITDA: $6.2bn ▪ Forecasted Revenue CAGR (2yr): (3.3%) ▪ $33.8bn of debt, $4.2bn in cash and cash equivalent	▪ Focus on responding to changing demands, and expanding into new areas of customer value and economic opportunity ▪ Short term strategy: aggressive price competition ▪ Churn reduction through network upgrade, better plans ▪ Network – optimize 3G, invest in deployment of LTE, VoLTE, Wi-Fi
Corporate Finance Transactions	**Structure**
▪ Sold spectrum licenses to AT&T (2015): ▪ Acquired Clearwire (2013): $3.5bn ▪ Merged with SoftBank (2013): $21.6bn ▪ Acquired Virgin Mobile USA (2009): $705m	▪ Subsidiaries/retail brands include Sprint, Boost Mobile and Virgin Mobile and Assurance ▪ Wireless revenue (94%), Wireline revenue (6%)

Company Background - Cable Company

Comcast

Comcast

COMCAST

History	Operations
▪ Made up of Comcast Cable and NBCUniversal ▪ Largest broadcasting and cable company in the world by revenue ▪ History traces back to 1963, IPO in 1972 ▪ 2011: Comcast bought NBCUniversal from General Electric ▪ Class A publicly traded (common – 511,489; special – 1,495), Class B not publicly traded (supervoting shares; 3 holders)	▪ Separated into 5 reportable business segments ▪ Cable Communications (64% consolidated revenue) is nation's largest provider of video, high-speed internet and related services ▪ Cable Networks (NBCU) composes of national cable networks, regional news & sports, cable TV production ▪ Broadcast Television (NBCU) includes NBC, Telemundo, etc. ▪ Filmed Entertainment (NBCU) produces, acquires, markets and distributes filmed content ▪ Theme Parks (NBCU)
Financial Stats/Performance	**Strategy**
▪ Market Cap: $151.2bn ▪ FY15E Revenue: $73.5bn, EBITDA: $24.6bn ▪ Forecasted Revenue CAGR (2yr): 4.5% ▪ $47.8bn of debt, $4.5bn in cash and cash equivalent ▪ Dividend payout raised to 11% ▪ Stock purchase authorization raised to $10bn	▪ Focus on improving customer experience, investing for profitable growth (i.e. X1 platform, Cloud DVR, etc.) ▪ Commitment to returning capital to shareholders ▪ Maintain a strong balance sheet ▪ Current focus (from TWC attempt) on approaching enterprise segment and wireless; pricing power on programming
Corporate Finance Transactions	**Structure**
▪ Acquisition of NBCUniversal: 51% stake purchased in 2011 ($6.5bn cash, $7.3bn programing); remaining bought in 2013 ▪ Stock repurchase authorization at $6.75bn for 2015 ▪ Attempted Acquisition of Time Warner Cable (2014): failed to pass FCC	▪ Subsidiaries include Comcast Cable, Midcontinent Communications, Comcast Interactive Media, Comcast Spectacor, NBCUniversal ▪ Comcast Cable and NBCU make up almost all of Comcast, with the two halves operating fairly separately

Company Background - Cable Company

Time Warner Cable

Time Warner Cable

History

- Formed in 1992 as a result of merger of American Television and Communications Corporation, and Warner Cable which formed Time Warner
- Time Warner Cable spun out as an independent company in 2009
- Ownership: Dodge & Cox (7.09%), TCI Fund Management Ltd. (6.08%), Vanguard Group Inc (5.90%), Children's Investment Fund Management LLP (UK) (5.50%), State Street Corp (4.22%)

Operations

- Second largest cable telecom company after Comcast (by revenue)
- Provider of video, high speed data and voice services in the USA
- 5 geographic areas: New York State, Carolinas, Midwest, Southern California and Texas

Financial Stats/Performance

- Market Cap: $51.9bn
- FY15E Revenue: $23.7bn, EBITDA: $8.2bn
- Forecasted Revenue CAGR (2yr): 5.9%
- $23.1bn of debt, $0.7bn in cash and cash equivalent

Strategy

- Break HBO out of cable TV bundle and become available to more people through a stand-alone subscription service
- Integrate with Charter Communication to increase scale and realize operational benefits

Corporate Finance Transactions

- Acquired Adelphia with Comcast (2006): 3.3m subscribers
- Acquired cloud/hosting service NaviSite (2011): $230m
- Acquired Insight Communications (2012): $3bn
- Agreed to acquire DukeNet Communications LLC (2013): $600m
- Acquisition announcement (2015): Charter buys TWC for $78.7bn

Structure

- 3 segments: Residential Services, Business Services, Other Operations
- Other Operations: TWC Media, advertising sales, regional sports networks, news & lifestyle channels, SportsNet LA

Company Background - Cable Company

Charter Communications

Charter Communications

History	Operations
▪ Founded in 1993 by former executives of Cencom Cable Television ▪ Filed for bankruptcy protection in Feb 2009, bankruptcy plan approved in November, extinguishing its stock and cutting ~$8bn in debt ▪ Ownership: Berkshire Hathaway Inc. (7.60%), Lone Pine Capital LLC (5.66%), Spo Advisory Corp (5.22%), Vanguard Group, Inc. (4.58%)	▪ Provider of cable services in US, serving approximately 6.2mn residential and commercial customers ▪ Sell video, internet and voice services on a subscription basis, often in a bundle ▪ Offers commercial services through Charter Business, including scalable broadband communications solutions and carrier organizations (internet, data networking, fiber connectivity)
Financial Stats/Performance	**Strategy**
▪ Market Cap: $20.2bn ▪ FY15E Revenue: $9.8bn, EBITDA: $3.4bn ▪ Forecasted Revenue CAGR (2yr): 7.8% ▪ $13.9bn of debt, $3m in cash and cash equivalent	▪ Integrate with Time Warner Cable to increase scale and realize operational benefits ▪ Introduce a new cloud-based user interface across its footprint, facilitating video services at low cost ▪ Create two service groups to service small and medium business segment, and enterprise and carrier customers
Corporate Finance Transactions	**Structure**
▪ Merge with Time Warner Cable (Announced): $78.7bn ▪ Acquire Bright House Networks (Announced): $10.4bn ▪ Liberty Media acquired 27.3% ownership interest in Charter (2013): $2.6bn	▪ Charter Holdco, through its subsidiaries, owns its cable systems

Company Background - Satellite TV
DirecTV

DirecTV

History

- Spun off Hughes Network Systems in 1994, sold off 50% share in Hughes and became separate entity in 2005
- Ownership: Berkshire Hathaway Inc. (6.22%), The Vanguard Group, Inc. (5.46%), State Street Global Advisors (US) (4.90%), BlackRock Institutional Trust Company, N.A. (3.91%), PRIMECAP Management Company (2.76%)

Operations

- Provider of HD digital Direct-to-Home TV entertainment in the USA (20.4m subs) and Latin America (19m combined) via satellite.
- Service Distributors: national retailers, satellite TV retailers, telephone companies
- Lease: DIRECTV receiver systems (dish antenna, set-top, remotes) and provide selection of programming packages to customers

Financial Stats/Performance

- Market Cap: $47.18bn (no longer traded)
- LTM Revenue: $33.9bn, EBITDA: $8.2bn
- Historic Revenue CAGR (5yr): 7.6%
- Net Debt $14.5bn, Cash $5.1bn
- Stock up 9.3% in the last 3 months on AT&T acquisition completion expectations and strong sales

Strategy

- Bundling Video, Telephone and Broadband: Agreements with major telcos to offer DSL/fibre with DIRECTV service included
- Long Term Profitability: Lower cost programming (Select™) and reduced receiver fees for value conscious customers
- Expand Accessibility: connecting customers to broadband via HD-DVR (YouTube, Pandora) + content streaming to Internet devices

Corporate Finance Transactions

- Acquistion by AT&T (Announced): $67.2bn
- Acquired Sky Brasil (2010): $604m

Structure

- SG&A segments: DIRECTV U.S., Sky Brasil and PanAmericana
- Programming: owns/operates 2 regional sports networks, and owns non-controlling interest in 2 other networks by ROOT SPORTS

Company Background – Satellite TV

Dish Network Corporation

Dish

History

- Began operations on March 4, 1996, as a service of EchoStar
- Taken public on 20 December 1999
- Ownership: Putnam Investments (17.66%), JP Morgan Chase Co. (9.39%), Dodge and Cox (5.45%), Eagle Capital Management (5.19%), Invesco Ltd. (4.26%)

Operations

- US's third largest pay-TV provider, ~14M US subscribers, offering HD local & national programming through satellites & receivers
- Channel partners include independent 3rd parties (satellite retailers, consumer electronic stores, direct marketing groups)
- Brand portfolio includes Sling TV (2015), dishNET™, Hopper/Joey Whole-Home DVR (2012)

Financial Stats/Performance

- Market Cap: $28.7bn
- FY15E Revenue: $15.1bn, EBITDA: $3.0bn
- Forecasted Revenue CAGR (2yr): 1.7%
- $13.8bn of debt, $9.2bn in cash and cash equivalent

Strategy

- Focus on better "price-to-value" than other subscription TV providers (Lowest Everyday Prices) after promotions expire.
- Explore cross-selling of pay-TV & wireless: Wireless Sling TV, new opportunities in fixed broadband and mobile video
- Put new spectrum assets to work through enabling acquirers for a potential full-network build-out (TMUS acquisition / attract acquirers

Corporate Finance Transactions

- Acquired DBSD North America (2012): $1bn
- Gamma Acquisition (subsidiary) acquires TerreStar satellite (2012): $1.4bn
- Acquired Blockbuster (2011): $320.6m
- Acquired Sling Media (2007): $380m

Structure

- Two primary segments: pay-TV service and wireless
- Pay-TV: FCC licenses authorizing use of DBS and FSS spectrum, receivers, wireline broadband, leased fiber optic network, call centre
- Wireless: 700MHz spectrum, H-Block, AWS-4 licenses subject to final/interim build-outs. $5.0B invested since 2008 to acquire wireless spectrum licenses.

Company Background – International Telecom Carrier
Vodafone

Vodafone

History

- Launched in 1985 as Racal-Vodafone, under Racal Electronics
- Later demerged, independently public since 1991
- Ownership: BlackRock (6.88%), Legal & General Investment Management (2.92%), Capital Research Global Investors (2.72%), The Vanguard Group (1.79%), SAFE Investment Company (1.61%)

Operations

- Global mobile telecom company (446mn mobile customers,12mn fixed broadband customers, operate in 30 countries, partner networks in another 50 markets)
- Service revenues: mobile (76%), fixed (20%)
- Two regions: Europe and Africa, Middle East & Asia Pacific (AMAP)

Financial Stats/Performance

- Market Cap: $90.1bn
- LTM Revenue: $66.4bn, FY15 EBITDA: $20.6bn
- Historic Revenue CAGR (5yr): -2.1%
- FY15 Net Debt $36.1bn, Cash $10.2bn
- Stock up 4.94% YTD (Jun 2015) on expected returns from Project Spring and FY14 acquisitions; spiked on merger talks

Key Positives

- Project Spring: (FY15/16) 4G for developed markets, 3G/4G for emerging markets, and fibre in Europe (£19bn investment)
- Fixed/Mobile Consolidation: Acquired large broadband companies in Germany and Spain (KDG, Ono); quad-play trend
- Emerging markets: strategic M&A to enter into new markets, followed by infrastructure build (added 24,000 2G and 30,000 3G sites in AMAP in FY14/15), tendency to later acquire full stake
- Focus on data: acquired 67% stake in South African ISP Neotel from Tata Communications; 19.9mn M-Pesa customers in AMAP

Corporate Finance Transactions

- Sold 45% stake in Verizon Wireless (2014): $130bn
- Acquired Kabel Deutschland (2014): €7.7bn ($10.2bn)
- Acquired Ono (2014): €7.2bn ($10bn)
- Acquired Cable & Wireless Worldwide (2012): £1.04bn

Structure

- Operates through a number of subsidiaries in line with national regions, largely wholly-owned though South African government still having a 13% stake in Vodacom; stake in Indus Towers (India)
- Associate in Kenya, joint venture in Australia, 55 partner networks

Company Background – Telecom / Media Conglomerate
SoftBank Corporation

SoftBank Corporation

SoftBank

History
- Founded in 1981 in Tokyo, Japan by Masayoshi Son
- Taken public in 1998
- Ownership: Son, Masayoshi (19.26%), Capital World Investors (8.13%), Son Estate KK (2.5%), Capital Research Global Investors (2.07%), Goldman Sachs & Company Ltd. (1.79%)

Operations
- Pure holding company that engages in 4 main reportable segments
- Mobile communications provides mobile services, sells mobile devices/accessories, produces and distributes mobile games
- Sprint segment provides mobile communication services in US, as well as fixed-line communication services
- Fixed-Line communication segment provides telecommunication services for corporate customers, and individual consumers
- Internet provides internet based advertising operations/services

Financial Stats/Performance
- FY14 Revenue: $79.3bn, EBITDA: $19.2bn
- Historic Revenue CAGR (5yr): 19%
- $26417 mm in cash and cash equivalents (Mar 31. 2015)
- Net sales increased 30.1% from increases in Mobile Communications and Sprint segment

Strategy
- Harvesting cash from Japan to invest in growth (internet) businesses in emerging markets
- Invests in companies possessing outstanding technologies or business models, or establishes joint ventures with them to form a strategic synergy group to achieve sustainable growth
- Acquired companies conduct business autonomously, with organic combination of their strengths to create synergies (allows all companies to benefit)
- Used acquisition of Sprint to penetrate US market

Corporate Finance Transactions
- Announced $1bn investment in Coupang (2015)
- Share repurchase (2013): JPY 32.4bn
- Acquisition Sprint Corporation (2013): $21.6bn
- Invested in Alibaba Group Holding (2000): $20m

Structure
- 756 subsidiaries, notably, Sprint Corporation, Yahoo Japan, Brightstar Global Group Inc., and GungHo Online Entertainment
- Major Equity Method Associate; Alibaba Group Holding Limited, Renren Inc., InMobi Pte. Ltd.

National Investment Banking Competition & Conference

Appendix C: NIBC 2016 First Round Case - Model Outputs Template

NIBC | NATIONAL INVESTMENT BANKING COMPETITION & CONFERENCE

October 2015

Discounted Cashflow Model

NIBC | NATIONAL INVESTMENT BANKING COMPETITION & CONFERENCE

October 2015

DCF Summary - Operating Model

*All dollar amounts in millions	2010	2011	2012	2013	2014	Cashflow Forecast 2015E	2016E	2017E	2018E	2019E	2020E
Wireless Revenues	58,500	63,215	66,763	69,899	73,992	-	-	-	-	-	-
Wireline Revenues	61,300	60,140	59,567	58,814	58,425	-	-	-	-	-	-
DirecTV Revenues	-	-	-	-	-	-	-	-	-	-	-
International Revenues	-	-	-	-	-	-	-	-	-	-	-
Advertising (discontinued) / Other Revenues	4,480	3,368	1,104	39	30	-	-	-	-	-	-
Total Revenues	**124,280**	**126,723**	**127,434**	**128,752**	**132,447**	**-**	**-**	**-**	**-**	**-**	**-**
Revenue Growth	*-*	*2.0%*	*0.6%*	*1.0%*	*2.9%*	*(100.0%)*	*-%*	*-%*	*-%*	*-%*	*-%*
Wireless Expenses	(36,185)	(41,282)	(43,296)	(44,508)	(48,924)	-	-	-	-	-	-
Wireline Expenses	(41,879)	(41,360)	(41,207)	(41,638)	(42,471)	-	-	-	-	-	-
DirecTV Expenses	-	-	-	-	-	-	-	-	-	-	-
International Expenses	-	-	-	-	-	-	-	-	-	-	-
Advertising (discontinued) / Other Expenses	(3,889)	(3,115)	(1,797)	(1,545)	(257)	-	-	-	-	-	-
Total Operating Costs	**(81,953)**	**(85,757)**	**(86,300)**	**(87,691)**	**(91,652)**	**-**	**-**	**-**	**-**	**-**	**-**
Wireless EBITDA	22,315	21,933	23,467	25,391	25,068	-	-	-	-	-	-
Wireline EBITDA	19,421	18,780	18,360	17,176	15,954	-	-	-	-	-	-
DirecTV EBITDA	-	-	-	-	-	-	-	-	-	-	-
International EBITDA	-	-	-	-	-	-	-	-	-	-	-
Advertising (discontinued) / Other EBITDA	591	253	(693)	(1,506)	(227)	-	-	-	-	-	-
Total EBITDA	**42,327**	**40,966**	**41,134**	**41,061**	**40,795**	**-**	**-**	**-**	**-**	**-**	**-**
EBITDA Growth	*-*	*(3.2%)*	*0.4%*	*(0.2%)*	*(0.6%)*	*(100.0%)*	*-%*	*-%*	*-%*	*-%*	*-%*
EBITDA Margin	*34.1%*	*32.3%*	*32.3%*	*31.9%*	*30.8%*	*-%*	*-%*	*-%*	*-%*	*-%*	*-%*
Wireless EBITDA Growth		*(1.7%)*	*7.0%*	*8.2%*	*(1.3%)*	*(100.0%)*	*-%*	*-%*	*-%*	*-%*	*-%*
Wireline EBITDA Growth		*(3.3%)*	*(2.2%)*	*(6.4%)*	*(7.1%)*	*(100.0%)*	*-%*	*-%*	*-%*	*-%*	*-%*
DirecTV EBITDA Growth								*-%*	*-%*	*-%*	*-%*
International EBITDA Growth										*-%*	*-%*
Advertising / Other EBITDA Growth							*-%*	*-%*	*-%*	*-%*	*-%*
Wireless EBITDA Margin	*38.1%*	*34.7%*	*35.1%*	*36.3%*	*33.9%*	*-%*	*-%*	*-%*	*-%*	*-%*	*-%*
Wireline EBITDA Margin	*31.7%*	*31.2%*	*30.8%*	*29.2%*	*27.3%*	*-%*	*-%*	*-%*	*-%*	*-%*	*-%*
DirecTV EBITDA Margin						*-%*	*-%*	*-%*	*-%*	*-%*	*-%*
International EBITDA Margin						*-%*	*-%*	*-%*	*-%*	*-%*	*-%*
Advertising / Other EBITDA Margin	*13.2%*	*7.5%*	*(62.8%)*	*(3861.5%)*	*(756.7%)*	*-%*	*-%*	*-%*	*-%*	*-%*	*-%*

DCF Summary - Capital Structure

*All dollar amounts in millions	2010	2011	2012	2013	2014	2015E	2016E	2017E	2018E	2019E	2020E
						Cashflow Forecast					
Total EBITDA	**42,327**	**40,966**	**41,134**	**41,061**	**40,795**	**-**	**-**	**-**	**-**	**-**	**-**
Capex	(19,530)	(20,110)	(19,465)	(20,944)	(21,199)	-	-	-	-	-	-
Tax	1,162	(2,532)	(2,900)	(9,224)	(3,442)	-	-	-	-	-	-
Working Capital and Other Adjustments	(8,267)	(3,954)	3,286	3,501	(1,383)	(32,876)	-	-	-	-	-
Free Cashflows	**15,692**	**14,370**	**22,055**	**14,394**	**14,771**	**(32,876)**	**-**	**-**	**-**	**-**	**-**
Cashflow for Debt Service	**15,692**	**14,370**	**22,055**	**14,394**	**14,771**	**(32,876)**	**-**	**-**	**-**	**-**	**-**
Interest Expense	(2,994)	(3,535)	(3,444)	(3,940)	(3,613)	-	-	-	-	-	-
Isssurance / Repayment of Long-term Debt	(7,059)	362	4,753	9,138	5,633	-	-	-	-	-	-
Interest Income and Other Items	2,438	1,033	886	1,238	1,827	-	-	-	-	-	-
Cashflow Available for Equity Distribution	**8,077**	**12,230**	**24,250**	**20,830**	**18,618**	**(32,876)**	**-**	**-**	**-**	**-**	**-**
Equity Issuance / Repurchase and Equity Items	(465)	(214)	(12,186)	(12,663)	(3,802)	-	-	-	-	-	-
Dividends (incl. distributions of cash balance)	(9,916)	(10,172)	(10,241)	(9,696)	(9,552)	-	-	-	-	-	-
Net Cashflows	**(2,304)**	**1,844**	**1,823**	**(1,529)**	**5,264**	**(32,876)**	**-**	**-**	**-**	**-**	**-**
Ending Cash Balance	**1,437**	**3,045**	**4,868**	**3,339**	**8,603**	**-**	**-**	**-**	**-**	**-**	**-**
Ending Debt Balance	**64,515**	**64,753**	**69,843**	**74,767**	**82,062**	**125,446**	**115,673**	**107,844**	**95,008**	**87,855**	**78,021**
Ending Net Debt Balance	**63,078**	**61,708**	**64,975**	**71,428**	**73,459**	**125,446**	**115,673**	**107,844**	**95,008**	**87,855**	**78,021**
Net Debt to EBITDA	**-**	**1.5 x**	**1.6 x**	**1.7 x**	**1.8 x**	**-**	**-**	**-**	**-**	**-**	**-**
Basic shares outstanding (millions)	*5,913*	*5,928*	*5,801*	*5,368*	*5,205*	*5,924*	*5,924*	*5,924*	*5,924*	*5,924*	*5,924*
Diluted shares outstanding (millions)	*5,938*	*5,950*	*5,821*	*5,385*	*5,221*	*5,943*	*5,943*	*5,943*	*5,943*	*5,943*	*5,943*
Diluted adjusted earnings (loss) per share	*$ 3.91*	*$ 2.91*	*$ 2.96*	*$ 1.94*	*$ 3.26*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Dividend per share(diluted)	*$ 1.68*	*$ 1.72*	*$ 1.75*	*$ 1.78*	*$ 1.84*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Free cashflow per share (diluted)	*$ 2.28*	*$ 2.27*	*$ 3.35*	*$ 2.17*	*$ 2.49*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Equity cashflow per share (diluted)	*$ 2.55*	*$ 2.03*	*$ 4.22*	*$ 3.09*	*$ 3.88*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*

DCF Summary - Valuation Results

*All dollar amounts in millions	Cashflow Forecast 2015E	2016E	2017E	2018E	2019E	2020E
Free cash flows to the firm (FCFF)	-	-	-	-	-	-

Enterprise Value EBITDA Multiple Method	
EBITDA Multiple	0.0x
Terminal Year EBITDA	-
Present Value of Terminal Value	-
Present Value of Forecast FCF	-
Enterprise Value	**-**
- Debt	(125,446)
+ Cash	6,202
Equity Value (Market Cap)	**-**
Shares outstanding	-
Fair value share price	**$0.00**

Enterprise Value Perpetual Growth Method	
Perpetual growth of firm cash flows	0.00%
Present Value of Terminal Value	-
Present Value of Forecast FCF	-
Enterprise Value	**-**
- Debt	(125,446)
+ Cash	6,202
Equity Value (Market Cap)	**-**
Shares outstanding	-
Fair value share price	**$0.00**

WACC Assumptions	
Valuation date	1-Nov-15
10-yr US government bc	0.0%
Expected market return	0.0%
Market risk premium	0.0%
Beta	0.00
CAPM cost of equity	**0.0%**
Cost of debt	0.0%
Tax rate	0.0%
After tax cost of debt	**0.0%**
Target gearing	0.0%
WACC	**0.0%**

Operating Assumptions		
Assumption	Key Metric	Justification
Total Revenue *(CAGR '15-'20)*	#DIV/0!	
Wireless Revenue *(CAGR '15-'20)*	#DIV/0!	
Wireline Revenue *(CAGR '15-'20)*	#DIV/0!	
International Revenue *(CAGR '15-'20)*	#DIV/0!	
DIRECTV Revenue *(CAGR '15-'20)*	#DIV/0!	
Total EBITDA *(CAGR '15-'20)*	#DIV/0!	
Wireless EBITDA *(CAGR '15-'20)*	#DIV/0!	
Wireline EBITDA *(CAGR '15-'20)*	#DIV/0!	
International EBITDA *(CAGR '15-'20)*	0.0%	
DIRECTV EBITDA *(CAGR '15-'20)*	#DIV/0!	
Capex (% of revenue) (*Average '15-'20)*	#DIV/0!	

Valuation Assumptions		
Assumption	Key Metric	Justification
Beta	0.00	
Risk-free Rate	0.0%	
Cost of Debt (pre-tax)	0.0%	
Perpetual Growth Rate	0.0%	
Exit Multiple	0.0x	

Leveraged Finance

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Levered Finance – Standalone Cashflow Projections

Standalone Cashflow Projection								
			Forecast					
		2015	2016	2017	2018	2019	2020
A. Standalone Cashflows							
Revenues			-	-	-	-	-
Operating Costs			-	-	-	-	-
EBITDA			**-**	**-**	**-**	**-**	**-**
Revenue Growth				*0.0%*	*0.0%*	*0.0%*	*0.0%*
EBITDA Growth (initial synergies ramp)				*0.0%*	*0.0%*	*0.0%*	*0.0%*
EBITDA Margin				*0.0%*	*0.0%*	*0.0%*	*0.0%*
Taxes			-	-	-	-	-
Capex			-	-	-	-	-
Change in Working Capital			(1)	-	-	-	-
Operating Cashflows			**(1)**	**-**	**-**	**-**	**-**
Interest Expense			-	-	-	-	-
Principal Repayment			-	-	-	-	-
Debt Issuance	Debt	0%	-	-	-	-	-
Equity Issuance	Equity	100%	20,000	-	-	-	-
Purchase Price	Multiple	0.0x	(20,000)	-	-	-	-
Equity Cashflows			**(1)**	**-**	**-**	**-**	**-**
Dividends Paid			**-**	**-**	**-**	**-**	**-**
Residual Cashflows			**(1)**	**-**	**-**	**-**	**-**
B. Key Metrics							
Incremental Debt Opening Balance			-	-	-	-	-
Incremental Debt Issued			-	-	-	-	-
Incremental Principal Paid			-	-	-	-	-
Incremental Debt Closing Balance			-	-	-	-	-
Incremental Interest Expense			-	-	-	-	-
Net Debt / EBITDA			**-**	**-**	**-**	**-**	**-**
Incremental Diluted Shares Issued (millions)			602	602	602	602	602
Free Cashflow per Share			**$ (0.00)**	**$ -**	**$ -**	**$ -**	**$ -**
Equity Cashflow per Share			**$ (0.00)**	**$ -**	**$ -**	**$ -**	**$ -**

Corporate Cashflow Projections

		Forecast				
	2015	2016	2017	2018	2019	2020
A. Corporate Cashflows (Pre-Transaction)						
Corporate Revenues		-	-	-	-	-
Corporate Opex		-	-	-	-	-
Corporate EBITDA		-	-	-	-	-
Corporate Capital Expenditures, Working Capital and Taxes		-	-	-	-	-
Corporate Operating Cashflows		-	-	-	-	-
Corporate Net Debt Flows		-	-	-	-	-
Corporate Equity Cashflows		-	-	-	-	-
B. Corporate Cashflows (Pro-Forma)						
Corporate Revenues		-	-	-	-	-
Incremental Revenues		-	-	-	-	-
Proforma Revenues		**-**	**-**	**-**	**-**	**-**
Corporate EBITDA		-	-	-	-	-
Incremental EBITDA		-	-	-	-	-
Proforma EBITDA		**-**	**-**	**-**	**-**	**-**
Corporate Capital Expenditures, Working Capital and Taxes		-	-	-	-	-
Incremental Capital Expenditures, Working Capital and Taxes		(1)	-	-	-	-
Proforma Operating Cashflows		**(1)**	**-**	**-**	**-**	**-**
Corporate Net Debt Flows		-	-	-	-	-
Incremental Debt Service		-	-	-	-	-
Combined Debt Flows		-	-	-	-	-
Proforma Equity Cashflows		**(1)**	**-**	**-**	**-**	**-**
C. Key Metrics						
Existing Diluted Shares Outstanding (millions)		5,943	5,943	5,943	5,943	5,943
Free Cashflows per Share (Pre-Transaction)		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Equity Cashflows per Share (Pre-Transaction)		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Incremental Diluted Shares Issued (millions)		602	602	602	602	602
Combined Total Cumulative Diluted Shares Outstanding (millions)		6,545	6,545	6,545	6,545	6,545
Free Cashflows per Share (Pro-Forma)		**$ (0.00)**	**$ -**	**$ -**	**$ -**	**$ -**
Equity Cashflows per Share (Pro-Forma)		**$ (0.00)**	**$ -**	**$ -**	**$ -**	**$ -**
Corporate Net Debt (Closing Balance)		115,673	107,844	95,008	87,855	78,021
Corporate Net Debt / EBITDA Ratio (Pre-Transaction)		**- x**	**- x**	**- x**	**- x**	**- x**
Incremental Debt (Closing Balance)		-	-	-	-	-
Combined Total Corporate Net Debt (Closing Balance)		115,673	107,844	95,008	87,855	78,021
Corporate Net Debt / EBITDA Ratio (Pro-Forma)		**- x**	**- x**	**- x**	**- x**	**- x**

Trading Comparables

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Company Name		Market Cap. [1]	EV [1]	Net Debt / EV	EV/Revenue [3]				EV/EBITDA [3]				P/E [3]				EBITDA CAGR [3]		Revenue CAGR [3]		EBITDA %	WACC
					2014A	LTM	NTM	2016E	2014A	LTM	NTM	2016E	2014A	LTM	NTM	2016E	3-Yr Hist	2-Yr Fcst	3-Yr Hist	2-Yr Fcst		
(all figures presented in USD millions, except per share figures or where noted)																						
Integrated Telecom																						
Verizon	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	7.4%	0.9%	4.3%	0.3%	34.5%	5.7%
Shaw Communuications	CAD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	(4.7%)	1.0%	(5.2%)	0.3%	43.2%	5.4%
Rogers Communications	CAD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	(7.2%)	2.8%	(6.5%)	1.8%	38.1%	4.5%
Telus Corporation	CAD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	(4.5%)	4.9%	(4.0%)	3.0%	35.1%	5.2%
BCE INC.	CAD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	(6.3%)	2.7%	(6.5%)	1.4%	39.5%	4.9%
Integrated Telecom Average		0	0	–	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	-3.1%*	2.4%	(3.6%)	1.4%	38.1%	5.1%
Wireless																						
T-Mobile	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	14.3%	20.7%	86.4%	7.4%	20.3%	5.8%
Sprint	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	9.6%	18.8%	(0.7%)	(1.0%)	11.1%	5.4%
US Cellular Corp	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	(3.7%)	5.3%	(3.5%)	0.9%	18.9%	7.4%
Wireless Average		0	0	–	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	6.7%*	15.0%	27.4%	2.4%	16.8%	6.2%
Wireline																						
CenturyLink Inc.	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	(2.9%)	(1.2%)	(0.9%)	0.0%	37.1%	5.6%
Frontier Communications	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	1.2%	15.6%	3.6%	14.7%	38.1%	6.1%
Consolidated Communications	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	21.5%	0.5%	18.1%	(1.4%)	35.6%	5.6%
Telephone and Data Systems	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	(2.2%)	3.9%	(1.0%)	1.4%	19.2%	6.4%
Comcast	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	7.2%	5.4%	5.5%	4.5%	33.3%	7.0%
Charter Communications	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	9.0%	9.9%	9.2%	7.8%	33.1%	6.2%
Time Warner Cable	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	2.0%	6.2%	3.5%	5.9%	34.6%	6.2%
Cablevision Systems Corp	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	2.6%	1.6%	2.3%	1.1%	27.8%	4.9%
Wireline Average		0	0	–	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x*	0.0x*	0.0x*	0.0x*	4.8%	5.2%	5.0%	4.2%	32.3%	6.0%
Satellite																						
Dish	USD	0	0	-%	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	10.6%	(1.6%)	4.6%	1.7%	20.2%	7.4%
Satellite Average		0	0	–	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	10.6%	(1.6%)	4.6%	1.7%	20.2%	7.4%
Cumulative Average		0	0	–	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	7.7%	6.1%	8.9%	3.8%	31.1%	6.7%
AT&T	USD	0	0	–	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	0.0x	4.5%	7.2%	5.0%	8.1%	30.4%	5.2%

Company Name	Segmented: Incl.?	Segmented: EV/Rev NTM	Segmented: Yes Incl.?	Segmented: EV/EBITDA NTM	Combined Entity: Yes Incl.?	Combined Entity: EV/Rev NTM	Combined Entity: Yes Incl.?	Combined Entity: EV/EBITDA NTM	Relevance to Target Valuation
Integrated Telecom									
Verizon					No	0.0x	No	0.0x	
Shaw Communuications					No	0.0x	No	0.0x	
Rogers Communications					No	0.0x	No	0.0x	
Telus Corporation					No	0.0x	No	0.0x	
BCE INC.					No	0.0x	No	0.0x	
Wireless									
T-Mobile	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Sprint	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
US Cellular Corp	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Wireless Average		0.0x		0.0x					
AT&T Metric (4)		$84,692		$30,405					
Implied Enterprise Value		**0**		**0**					
Wireline									
CenturyLink Inc.	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Frontier Communications	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Consolidated Communications	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Telephone and Data Systems	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Comcast	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Charter Communications	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Time Warner Cable	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Cablevision Systems Corp	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Wireline Average		0.0x		0.0x					
AT&T Metric (4)		$62,173		$17,732					
Implied Enterprise Value		**0**		**0**					
Satellite									
Dish	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Satellite Average		0.0x		0.0x					
AT&T Metric (4)		$16,318		$4,016					
Implied Enterprise Value		**0**		**0**					
Combined Average						0.0x		0.0x	
AT&T Metric						$163,183		$52,152	
Total Enterprise Value		**0**		**0**		**0**		**0**	
- Debt		(126,930)		(126,930)		(126,930)		(126,930)	
- Preferred & Other		(965)		(965)		(965)		(965)	
+ Cash		6,202		6,202		6,202		6,202	
Equity Value		(121,693)		(121,693)		(121,693)		(121,693)	
Shares Outstanding (millions)		0		0		0		0	
Fair Value Share Price		**$0.00**		**$0.00**		**$0.00**		**$0.00**	

Precedents

NIBC | NATIONAL INVESTMENT BANKING COMPETITION & CONFERENCE

October 2015

	Segmented				Combined Entity				
		EV/Revenue		EV/EBITDA		EV/Revenue		EV/EBITDA	
Target	Incl.?	LTM	Incl.?	LTM	Incl.?	LTM	Incl.?	LTM	Relevance to Target Valuation
(all figures presented in USD millions, except per share figures or where otherwise noted)									
US Wireless									
Cellco Partnership	No	0.00	No	0.00	No	0.00	No	0.00	
Leap Wireless	No	0.00	No	0.00	No	0.00	No	0.00	
Clearwire	No	0.00	No	0.00	No	0.00	No	0.00	
Sprint	No	0.00	No	0.00	No	0.00	No	0.00	
Alltel	No	0.00	No	0.00	No	0.00	No	0.00	
SunCom Wireless	No	0.00	No	0.00	No	0.00	No	0.00	
US Wireless Average		0.0x		0.0x					
AT&T Metric		72,204		24,643					
Implied Enterprise Value		**0**		**0**					
US Wireline									
TW Telecom	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Charter Communications	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Bresnan Broadband	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Virgin Media	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Atlantic Broadband Finance	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Insight Communications	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Qwest Communications	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
BellSouth Corporation	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
Verizon Business Global	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
AT&T Corp.	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
US Wireline Average		0.0x		0.0x					
AT&T Metric		53,005		14,371					
Implied Enterprise Value		**0**		**0**					
Satellite									
DirecTV	No	0.00	No	0.00	No	0.00	No	0.00	
Hughes Communications	No	0.0x	No	0.0x	No	0.0x	No	0.0x	
US Wireline Average		0.0x		0.0x					
AT&T Metric		13,912		3,255					
Implied Enterprise Value		**0**		**0**					
Latin America Telecom									
Columbus Communications					No	0.00	No	0.00	
Telefonos de Mexico					No	0.00	No	0.00	
Tele Norte Leste Participacoes S.A.					No	0.00	No	0.00	
America Telecom					No	0.00	No	0.00	
TV & Media									
AOL					No	0.00	No	0.00	
LIN Media					No	0.00	No	0.00	
Astral Media Inc.					No	0.00	No	0.00	
NBCUniversal Media					No	0.00	No	0.00	
Belo Corp.					No	0.00	No	0.00	
Combined Average						0.0x		0.0x	
AT&T Metric						139,121		42,269	
Total Enterprise Value		**$0**		**$0**		**$0**		**$0**	
- Debt		(126,930)		(126,930)		(126,930)		(126,930)	
- Preferred & Other		(965)		(965)		(965)		(965)	
+ Cash		6,202		6,202		6,202		6,202	
Equity Value		-$121,693		-$121,693		-$121,693		-$121,693	
Shares Outstanding (millions)		0		0		0		0	
Fair Value Share Price		**#DIV/0!**		**#DIV/0!**		**#DIV/0!**		**#DIV/0!**	

Precedents – Dataset

Target		Buyer			Transaction				LTM		EV/LTM (2)	
Company	Type	Company	Type	EV (1)	Date	Year	Rationale	Impl. EV	Revenue	EBITDA	Revenue	EBITDA
(all figures presented in USD millions, except per share figures or where otherwise noted)												
US Wireless												
Cellco Partnership (Verizon Wireless)		Verizon		297,407	September 2, 2013	2013			75,868	29,682		
Leap Wireless		AT&T		278,293	July 12, 2013	2013			3,051	467		
Clearwire		Sprint		49,020	December 13, 2012	2012			1,260	(405)		
Sprint		SoftBank		149,070	October 15, 2012	2012			35,404	4,479		
Alltel		Cellco Partnership		N/A	June 6, 2008	2008			9,040	3,201		
SunCom Wireless		T-Mobile		52,934	September 12, 2007	2007			920	151		
US Wireless Average												
US Wireline												
TW Telecom		Level 3 Communications		28,786	June 16, 2014	2014			1,591	518		
Charter Communications		Liberty Media		27,009	March 19, 2013	2013			7,504	2,644		
Bresnan Broadband		Charter Communications Operating		N/A	February 7, 2013	2013			509	163		
Virgin Media		Liberty Global		84,033	February 5, 2013	2013			6,279	2,532		
Atlantic Broadband Finance		Cogeco Cable		4,888	July 18, 2012	2012			329	145		
Insight Communications		Time Warner Cable		74,635	August 15, 2011	2011			1,064	369		
Qwest Communications		CenturyLink		36,104	April 22, 2010	2010			12,104	4,027		
BellSouth Corporation		AT&T		278,293	March 6, 2006	2006			20,547	8,772		
MCI (Verizon Business Global)		Verizon		297,407	February 14, 2005	2005			18,914	2,075		
AT&T Corp.		SBC Communications		N/A	January 30, 2005	2005			30,537	6,507		
US Wireline Average												
Satellite												
DirecTV		AT&T		278,293	May 18, 2014	2014			32,029	8,156		
Hughes Communications		EchoStar		5,045	February 14, 2011	2011			1,043	209		
Satellite Average												
Latin America Telecom												
Columbus Communications		Cable & Wireless Communications		7,732	November 6, 2014	2014			505	213		
Telefonos de Mexico		America Movil		95,227	August 1, 2011	2011			6,766	2,687		
Tele Norte Leste Participacoes		Oi		10,592	May 24, 2011	2011			7,543	2,802		
America Telecom		America Movil		95,227	November 9, 2006	2006			12,490	4,036		
Latin America Telecom Average												
TV & Media												
AOL		Verizon		297,407	May 12, 2015	2015			2,569	433		
LIN Media		Media General		4,141	March 31, 2014	2014			702	175		
Astral Media		Bell Media		N/A	March 16, 2012	2012			789	255		
Belo Corp.		TEGNA		10,594	June 13, 2013	2013			719	262		
NBCUniversal Media		Comcast		196,363	February 12, 2013	2013			23,812	4,290		
TV & Media Average												
AT&T											**2.0x**	**8.8x**