Cable Industry Analysis

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Objective & Background

- To give an overview of the cable industry.
- Illustrate the capital intensive nature of this industry that has few competitors and limited substitutes.
- Show how industry has adapted to becoming a communications provider and not just a TV provider.
- Overview of Comcast in this rapidly changing marketplace.
Agenda

- Industry Analysis
  - Description
  - Market Structure, Size & Pricing
  - Demand Factors
  - Competitive environment
  - Non-economic factors
- Firm Analysis (Comcast Corporation)
  - Demand Factors
  - Production/Cost Issues
  - Market Power, Strategies and Goals
- Market Forecast & Projections
- Macro Environment Impact on Firm and Industry
- Summary
Doing an EMBA forces us to read!
INDUSTRY ANALYSIS
Cable TV History

**1940’s & 50’s**
- Began as a means to enhance TV reception
- In 1952 there were 70 systems and 14,000 subscribers

**1960’s**
- By 1962 there were 800 systems and 850,000 subscribers
- FCC expands jurisdiction and places restrictions
- Market ‘freeze’ occurs lasting through to mid-70’s

**1970’s**
- Gradual deregulation begins in 1972 increasing investment
- HBO and WTBS ‘Superstation’ begin as premium channels
- Decade ends with 16 million subscribers
Cable TV History

- **1980’s**
  - New 1984 deregulation act causes rapid growth
  - $15 Billion invested in wiring over 8 year period
  - Ended the decade with 53 million subscribers
  - Price rises begin to fuel consumer concern

- **1990’s**
  - New regulations opened ‘exclusive’ programming to other competitive technologies
  - 70% market share retained by Cable TV providers
  - Massive investment in ‘broadband’ begins in 1996

- **2000 and beyond**
  - Dramatic growth with Broadband services
    - HDTV, VOD, VoIP
  - Today Cable companies are a ‘Broadband Provider’
## Description of Industry

- **US Television Households**: 112,275,000
- **Cable TV Penetration**: 58%
- **Annual Cable Revenues**: $75.2 Billion
- **Advertising Revenues**: $26.9 Billion
- **Franchise Fees Paid By Cable**: $3.0 Billion

*Source: NCTA estimated Statistics*
Market Structure

Cable Providers:

Satellite Providers:

98% of homes only have ONE choice for their cable provider

Available nationwide
Cable TV compared to DBS

Dish/Direct TV = 30.2M subscribers as of September 2007
Top 5 Cable Providers

Comcast
Time Warner
Cox
Charter
Cablevision

Top 5 Cable Companies represent 80% of the approx. 1,200 Cable operators

Source: NCTA
Cable Price to CPI

- 1986-’92 $15bn investment in wiring
- Legislation opens channels to Satellite providers

1996 to 2002 $65bn investment in broadband

Source: NCTA (Average Price for Expanded basic) and BLS for CPI statistics
Cable Price to CPI

You now pay 48% more for Expanded Basic than you did in 1986*

Source: NCTA (Average Price for Expanded basic) and BLS for CPI statistics
### Basic Cable Channels

<table>
<thead>
<tr>
<th>Service Elements</th>
<th>1995</th>
<th>1999</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>$</td>
<td>$ 12.47</td>
<td>$ 13.80</td>
</tr>
<tr>
<td>Expanded</td>
<td>$</td>
<td>$ 16.93</td>
<td>$ 27.24</td>
</tr>
<tr>
<td>Programming</td>
<td>$</td>
<td>$ 29.40</td>
<td>$ 41.04</td>
</tr>
<tr>
<td>Equipment</td>
<td>$</td>
<td>$ 2.74</td>
<td>$ 4.28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 24.34</td>
<td>$ 32.14</td>
<td>$ 45.32</td>
</tr>
<tr>
<td><strong>Channels</strong></td>
<td>43.6</td>
<td>52.4</td>
<td>70.3</td>
</tr>
<tr>
<td><strong>Price per Channel</strong></td>
<td>$ 0.604</td>
<td>$ 0.640</td>
<td>$ 0.660</td>
</tr>
</tbody>
</table>

- Expanded Basic increased 9.3% per channel basis
- CPI increased by 16.4% during the same period
Price to Amount of Subscribers

Time Period 1986 to 2007

Basic Cable to Subscribers

Subscribers peak in 2001
Price rises trend nearer to CPI

Source: NCTA
Industry Price Elasticity

- Basic cable prices are inelastic due to these key reasons:
  - There are currently a lack of substitutes
  - Cable is a natural monopoly in nearly all markets
  - Difficulties associated with change
  - People will not forego television
Cost & Production Issues: Industry Profitability

Net Income (Mil. $) vs. Year

Source: Economy.com
Production & Cost issues: Capital Investment

Over $130 billion invested in the last 12 years!
Broadband Deployment

Source: NCTA
Broadband Pro’s and Con’s

© Original Artist

This new 4570MHz system with super high-speed DSL internet connection will allow you to work 50% harder and I’ll be able to keep in touch with you from my yacht.

© Original Artist

Apparently honey, too much internet is bad for your marriage...
Non-Economic Factors

- Growth comes from added services and market segments. “TV is a mature market.”
- Customer perception of Cable Companies (Customer Service)
- Government or FCC involvement
- Technology changes
- Added Competition (AT&T/Verizon)
“Comcast will be the company to look to first for the communications products and services that connect people to what's important in their lives.”
Demand Factors: Additional Services

Revenue by Product and Total Average Revenue per Basic Subscriber

Note: Graph includes ARPU from circuit-switched phone acquired from AT&T Broadband.
Demand Factors: Digital Enhancements

Launch ON DEMAND
Launch HD
Launch DVR
Launch Movies ON DEMAND
Launch Broadcast ON DEMAND

Digital Penetration

1999 2000 2001 2002 2003 2004 2005 2006 2Q07

11% 19% 28% 31% 36% 40% 46% 52% 59%

80-85%
Comcast Financial Performance

- Comcast acquisition of AT&T doubles the size of the company making it the US largest cable provider (2002/2003).
- Income growth through leveraging scale with the addition of new services

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales $Mil</th>
<th>Operating Income $Mil</th>
<th>Net Income $Mil</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>$7,997</td>
<td>-$274</td>
<td>-$274</td>
</tr>
<tr>
<td>2003</td>
<td>$17,330</td>
<td>$1,938</td>
<td>$3,240</td>
</tr>
<tr>
<td>2004</td>
<td>$19,221</td>
<td>$2,829</td>
<td>$970</td>
</tr>
<tr>
<td>2005</td>
<td>$21,075</td>
<td>$3,521</td>
<td>$928</td>
</tr>
<tr>
<td>2006</td>
<td>$24,966</td>
<td>$4,619</td>
<td>$2,533</td>
</tr>
</tbody>
</table>
Production and Cost Issues

### Chart Description

- **Y-axis:** Revenue
- **X-axis:** Years (2002-2006)

#### AT&T/Comcast Merger

- **Label:** AT&T/Comcast Merger
- **Graph Highlight:** Indicates the impact of the merger on the company's revenue.

### Table: Revenue and Expenses by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Revenue</th>
<th>Cost of Revenue, Total</th>
<th>Selling/General/Administrative Expenses, Total</th>
<th>Depreciation/Amortization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>$8,102</td>
<td>$3,012</td>
<td>$2,254</td>
<td>$1,915</td>
</tr>
<tr>
<td>2003</td>
<td>$18,348</td>
<td>$7,041</td>
<td>$4,915</td>
<td>$4,438</td>
</tr>
<tr>
<td>2004</td>
<td>$19,221</td>
<td>$7,036</td>
<td>$5,005</td>
<td>$4,351</td>
</tr>
<tr>
<td>2005</td>
<td>$21,075</td>
<td>$7,513</td>
<td>$5,490</td>
<td>$4,551</td>
</tr>
<tr>
<td>2006</td>
<td>$24,966</td>
<td>$9,010</td>
<td>$6,514</td>
<td>$4,823</td>
</tr>
</tbody>
</table>
Comcast Capital investment

76% of 2006 Capital Spend is on new services

Source: Comcast 2006 Annual Report
Comcast Subscriber Growth

Growth through acquisition to leverage economies of scale

AT&T Broadband merger doubles size of Company

Tupelo, MS
Strategies & Goals

- Sustainable Double-Digit Growth
  - Smart Capital/Expense Spending
  - Greater Customer Focus
- Superior Products Powering Business
  - Expand HD and VOD capabilities
  - Super High Speed Internet (Dcosis 3.0)
- Establishing New Growth Opportunities
  - Commercial
  - Interactive Advertising
FORECAST, PROJECTIONS, RECOMMENDATIONS
Reduce Costs of Production

- Increase/Maximize SIK’s (self install kits) for consumer products
- Focus on Customer Service
  - Churn Reduction (keep what you have!)
  - Satisfied Customers…”word of mouth”
- Increase efficiencies/decrease installation times needed for technicians
- Reduce outsourcing
Growth Opportunities

New Growth Opportunities

Business Services
- Significant Opportunity within the Footprint
  - SMB\(^{(1)}\) : $12-$15Bn\(^{(2)}\) ; 5MM Businesses
  - Goal: Capture 20% of the Market
- Natural Extension of the current Network and Services
- Proven Business Model with Strong Returns

Interactive Advertising
- Unique 2-Way Platform and Scale
- Establishing Industry-wide Effort
- Increasing cable’s share of $290Bn

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\(^{(1)}\)Estimates of 2006 revenue and businesses
\(^{(2)}\)Excludes cellular backhaul
MACRO ENVIRONMENT & THE IMPACT ON FIRM & INDUSTRY
Economic Factors: Cable Industry to GDP

Source: BEA.GOV by Industry GDP
Economic Factors: Real GDP

Cable Industry follows the GDP trend

Source: Forecast of the Nation GSU Economic Forecasting Center
Economic Factors: Disposable Income

A reduction in disposable income impacts spend on Cable services

Source: Forecast of the Nation GSU Economic Forecasting Center
Economic Factors: Housing Starts

A reduction in residential reduces the growth in RGU’s

Source: Forecast of the Nation GSU Economic Forecasting Center
Economic Factors:
CPI – Cable CPI vs Channels

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. Change*</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>2.10%</td>
</tr>
<tr>
<td>Cable CPI</td>
<td>4.60%</td>
</tr>
<tr>
<td>No. of Channels</td>
<td>6.30%</td>
</tr>
</tbody>
</table>

FCC (MM Docket No. 92.266) Feb 4th, 2005 (pg 20)
Summary

- Highly capital intensive industry.
- Industry consolidation likely to continue due to high capital requirements.
- Competition with satellite and new entrants (Fios/U-vers) likely to challenge cable market share.
- New technologies could impact cable industry and shift focus.
- Comcast is a dominant player and IS profitable compared to the industry.
- Cable is a “natural” monopoly due to entry costs.
- Industry is no longer solely TV, they are now an: “Entertainment and Communication Provider”
Cable Industry Appendix
Modern Cable Infrastructure

HFC - Hybrid Fiber Coax

Interfaces to other networks

Cluster of about 125 - 2000 customers

Primary Ring

Regional Headend

Secondary Ring

Hub

Optical Nodes

CATV-Net
## Forecast & Projections
### High Definition TV

<table>
<thead>
<tr>
<th>Homes with HD Televisions</th>
<th>Homes with HD Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of U.S. TV Homes</td>
<td>% of U.S. TV Homes</td>
</tr>
<tr>
<td>2006</td>
<td>2006</td>
</tr>
<tr>
<td>25% 28M</td>
<td>12% 13M</td>
</tr>
<tr>
<td>36% 40M</td>
<td>19% 21M</td>
</tr>
<tr>
<td>49% 55M</td>
<td>28% 32M</td>
</tr>
<tr>
<td>57% 66M</td>
<td>37% 42M</td>
</tr>
<tr>
<td>62% 72M</td>
<td>44% 51M</td>
</tr>
</tbody>
</table>

Source: Third party research & Direct TV estimates
Power Increases with Their Size

- As cable companies have grown larger and increased their geographic reach, they’ve gained more resources and power when they negotiate with a single city or choose to raise prices.

<table>
<thead>
<tr>
<th>Company</th>
<th>Enterprise Value (in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Warner</td>
<td>$101</td>
</tr>
<tr>
<td>Comcast</td>
<td>$91</td>
</tr>
<tr>
<td>Cox</td>
<td>$27</td>
</tr>
<tr>
<td>Charter</td>
<td>$20</td>
</tr>
<tr>
<td>Adelphia</td>
<td>$17</td>
</tr>
<tr>
<td>Cablevision</td>
<td>$15</td>
</tr>
</tbody>
</table>

- Comcast is the largest of the cable companies, with an enterprise value of $91 billion.
- Time Warner’s value includes major non-cable holdings such as AOL, publishing, etc.

*Enterprise value = total equity (a.k.a. market cap) + the total debt and measures the total capital of the company.*
Franchise Rights Granted by Municipalities Are Companies’ Most Valuable Asset

- The franchise right is the largest asset on a cable company’s books
- At Comcast, the franchise right represents 43% of the company’s assets.

The franchise right the city grants is the most important asset of the cable company and the city should insist on fair value for it.

Source: Comcast financial statements, as of 12/31/03. Comcast's asset distribution is typical.
Cable Subscribers Are Valued at $3,820 Each

- The average value per cable subscriber (total “enterprise value” divided by the number of cable subscribers) is about $3,820.

<table>
<thead>
<tr>
<th></th>
<th>Adelphia</th>
<th>Cablevision</th>
<th>Charter</th>
<th>Comcast</th>
<th>Cox</th>
<th>Time Warner*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Subscribers</td>
<td>5,100,000</td>
<td>2,960,000</td>
<td>6,537,000</td>
<td>21,468,000</td>
<td>8,400,000</td>
<td>4,300,000</td>
</tr>
<tr>
<td>Enterprise Value (billions)</td>
<td>$17.0</td>
<td>$15.3</td>
<td>$19.8</td>
<td>$90.9</td>
<td>$26.9</td>
<td>$100.95</td>
</tr>
<tr>
<td>Value per Sub</td>
<td>$3,333</td>
<td>$5,169</td>
<td>$3,034</td>
<td>$4,236</td>
<td>$3,202</td>
<td>Not meaningful</td>
</tr>
</tbody>
</table>

*Figures are for all of Time Warner; separate financials for Time Warner Cable not available.

Weighted average value per sub: $3,820

- This is the value that company owns because the municipality has granted it the franchise right.
Consistent Growth in Cable

Cable Revenue, OCF, Growth Rates and Margins

(OCF & Revenue in billions)

<table>
<thead>
<tr>
<th>3Q05</th>
<th>3Q06</th>
<th>3Q07</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Green) OCF</td>
<td>(Orange) Revenue</td>
<td>OCF Margin</td>
</tr>
<tr>
<td>$2.3</td>
<td>$2.6</td>
<td>$3.0</td>
</tr>
<tr>
<td>38.4%</td>
<td>39.6%</td>
<td>40.2%</td>
</tr>
</tbody>
</table>

+10%  +12%  +11%

+14%  +15%  +13%

Notes:
1. 3Q06 & 3Q07 revenue, OCF and margins are proforma Patriot Media acquisition.
2. 3Q05 & 3Q06 revenue and OCF growth rates and 3Q05 margins are not proforma acquisitions.
Comcast Share Price History

Comcast has underperformed compared to all stocks on the NASDAQ

Price history - CMCSA (1/26/2003 - 1/24/2008)
Demand Factors: Bundled Packages

Total RGU Net Additions\(^{(1)}\)

(1) Additions are reported pro forma and include circuit switched phone sub losses of for 2005-2007. 2007E reflects Comcast guidance.
Demand Factors: Phone Service

Ramping CDV Subscribers

(in thousands)

Goal: 20-25% Penetration* or 11MM customers by YE09

4th Largest Residential Phone Company by YE07
Demand Factors: High Speed Internet

Total HSD Subscribers
(subscribers in millions)

- Penetration

8.7
19%
2Q05

10.5
23%
2Q06

12.4
26%
2Q07

Stable ARPU: $40+/Month