



# Yale SCHOOL *of* MANAGEMENT

## **Cablevision Initiation Report: “Nowhere to Go but Down”** *April 21, 2006*

### ***Investment Thesis:***

- Cablevision has an early competitively advantage compared to telecom, cable, and satellite peers in the quest to grow subscribers and increase average revenue per user due to its early rollout of its VoIP. However, Verizon’s FIOS looms as a credible medium term threat to compete for Cablevision’s market share and lower Cablevision’s margins.
  - Cablevision captured the first mover advantage by aggressively building out its VoIP capability and completing the triple play bundle (voice, data, and video) earlier than peers.
  - Demand for HDTV, VOD, and DVRs is accelerating, driving average revenue per user higher in the near term.
  - Cablevision’s infrastructure is built. As one of the first cable operators to build out its voice infrastructure, Cablevision now expects lower capital expenditures and fewer operational hurdles than peers.
- Cablevision’s long term prospects depend on Verizon’s ability to penetrate Cablevision’s triple play market by pricing below Cablevision and offering a comparable bundled product.

***Recommendation: Sell***

***Current Price: \$18.14***

***Target Price: \$16.50***

***Return to Target: -9%***

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## ***Business Summary:***

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Cablevision Systems Corporation operates as the United States sixth largest MSO, serving just over 3 million basic cable subscribers in the Northeast corridor of the United States. Cablevision operates in three segments: Telecommunications Services; Rainbow; and Madison Square Garden. The Telecommunications Services segment operates cable television business, including basic video, interactive digital video, high-speed data, voice over Internet protocol (VoIP), and residential telephone services operations, as well as the operations of the commercial telephone and high-speed data services. It's worth noting that the Cablevision network is home to the nation's second largest individual cable system, based in Hicksville, NY, serving 458,163 basic cable subscribers.

The Rainbow segment of Cablevision consists principally of interests in national and regional programming networks, the Madison Square Garden sports and entertainment businesses, as well as cable television advertising sales companies. Rainbow reaches more than 200 million customers worldwide through its many popular national, regional and local programming networks, including AMC, IFC (The Independent Film Channel), WE: Women's Entertainment, Fuse, MSG Network, News 12 Networks and the MetroChannels. Rainbow used to operate the recently shut down VOOM HD Originals, a suite of 21 high-definition channels, for distribution to cable operators and satellite TV providers. The Madison Square Garden segment owns and operates professional sports teams, principally the New York Knicks of the National Basketball Association, the New York Rangers of the National Hockey League, the Hartford Wolf Pack of the American Hockey League, and the New York Liberty of the Women's National Basketball Association, as well as the MSG Networks sports programming business, and an entertainment business. It also operates sports and entertainment venues, such as the Madison Square Garden Arena, Radio City Music Hall, the Hartford Civic Center, and Rentschler Field – home of the University of Connecticut football team.

As mentioned previously, Cablevision has approximately 3 million basic subscribers, 1.7 million high speed data subscribers, and 700 thousand VoIP customers. The Cable segment of the business develops, manages, and operates broadband communications networks, including video, Internet, and phone services, and regional sports and news networks. Its video services include basic and digital cable, video on demand, high-definition television, digital video recorder, premium channel programming, and pay-per-view programming.

For the full year 2005, Cablevision generated 70% or \$3.6 billion of its revenues from Telecommunications, 16% or \$830 million from Rainbow, and 16% or \$800 million from Madison Square Garden.



## ***Recent Cablevision History:***

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One of our primary concerns with the current business model has little to do with the assets or cash flows, but instead with Cablevision owners and management team, the Dolans. James Dolan, President & CEO of Cablevision and Chairman of the Board and father Charles Dolan have spearheaded some of the more curious management decisions Wall Street has seen in the past five years, and never cease to amaze the investing public. We have included a brief timeline of recent events to give you a sense of the some of how the Dolan's like to run their business.

**January 2005:** A father-son showdown in the family that controls Cablevision ended with the son outmaneuvering the father and persuading directors to vote to sell the company's troubled VOOM satellite business to EchoStar Communications for \$200 million in cash. The directors sided with James L. Dolan, the 49-year-old chief executive and the heir apparent, against his father, Charles F. Dolan, the 78-year-old founder and controlling shareholder of Cablevision. The father, who founded HBO, wanted to keep Voom. The son wanted to sell. The meeting appeared to have been prompted by outside directors who were concerned about the satellite company. Several independent directors were concerned about the possible legal implications of supporting VOOM despite its losses and criticism on Wall Street. Problems at the company had become so noticeable that even longtime family supporters had started to oppose the project. The service has 26,000 subscribers and has about \$76 million. When Cablevision recently canceled plans to spin off VOOM and its Rainbow Media group, it said it would "pursue strategic alternatives" instead.

Under the terms of the deal, EchoStar will pay \$200 million in cash for Cablevision's satellite, called Rainbow 1, as well as federal licenses to construct, introduce and operate satellite services over 11 frequency channels. In addition, EchoStar will buy the company's ground facility in Black Hawk, SD, and related assets.<sup>1</sup>

**June 2005:** Cablevision confirms an offer to take the company private for about \$7.9 billion. The bid includes \$21 a share in cash plus shares of a spun-off company comprising various cable networks worth an additional \$12.50 a share. Cablevision's board will form an independent committee to evaluate the offer. The Dolan family owns about 20% of the company's common stock and controls 71% of the company via a special class of stock.

Under the transaction outlined in a letter to the board, Cablevision would spin off a company that includes cable networks such as AMC and IFC as well as its regional sports networks, Madison Square Garden, the New York Knicks and Rangers and various other properties. Existing shareholders would get a proportional interest in the content and sports unit.<sup>2</sup>

**October 2005:** The Dolans cemented their reputation for unpredictability by withdrawing a \$7.9bn offer to take private Cablevision, their family-controlled cable operator. Charles Dolan, the company's founder, and his son James, chief executive, said they had been "unable to reach

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<sup>1</sup> **Cablevision family showdown leads to VOOM satellite sale to EchoStar**, BroadcastEngineering, January 2005

<sup>2</sup> **Dolans Offer \$7.9 Billion for Cablevision**, TheStreet.com, June 20 2005



agreement" with the directors negotiating on behalf of shareholders. Instead, the Dolans, who own 20 per cent of shares but control 71 per cent of votes, have suggested that Cablevision's board pay a \$3 billion special dividend in cash to shareholders.<sup>3</sup>

**December 2005:** Cablevision announces that it has to cancel a planned \$3 billion dividend and a \$1 billion financing deal after finding it had breached a promise to bankers. Cablevision executives attributed the violation to a "technical" error and said it wasn't related to "any underlying financial weakness." To show how minor the violation was, the company pointed to a misstatement of an \$18 million loan from a supplier.

"It doesn't make any sense," said one New York hedge fund manager. "You don't cancel a \$3 billion dividend over an \$18 million accounting error."<sup>4</sup> We tend to agree, and yet the story would continue to get more and more interesting.

**February 2006:** Cablevision obtains \$2.4 billion of secured credit facilities. The cable TV system operator said the line consists of a \$1 billion revolving credit facility and \$1.4 billion of term loans. The company said its CSC Holdings arm has used \$1.3 billion of the proceeds from the new credit facilities to repay the amounts outstanding under its current \$2.4 billion revolving credit facility and accrued interest and fees, and intends to use the remainder of the proceeds for general corporate purposes.

The existing facility was scheduled to expire in June 2006. The terms of the new credit facilities allow the company to access up to \$3.1 billion of additional funds from an uncommitted incremental credit facility. Cablevision said in December that it had to cancel a planned \$3 billion dividend and a \$1 billion financing deal after finding it had breached covenants of an earlier credit line. They now feel as though the distribution of this dividend is now possible.

**April 2006:** Cablevision declares a special dividend of \$3 billion, or \$10 per share. The company had announced plans for the dividend earlier but put them on hold after finding it would have created problems for its borrowing agreements, which were apparently later resolved.

To be clear, a company that has \$9 billion of debt and capital expenditures that show no signs of decreasing in the near future is borrowing money to pay out a dividend. The on-again, off-again distribution has not received a warm welcome from Wall Street analysts, several of whom would have preferred to see the company buy back its own shares rather than taking on debt to pay a dividend. It's worth noting that the combined payout to the company's controlling shareholders, the Dolan family, would amount to about \$650 million.<sup>5</sup>

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<sup>3</sup> Dolans pull \$7.9bn Cablevision offer, FT.com, October 25, 2005

<sup>4</sup> Cablevision's Credibility Gap Closes, TheStreet.com, December 20, 2005

<sup>5</sup> Cablevision Declares Special Dividend, Associated Press, April 10, 2006

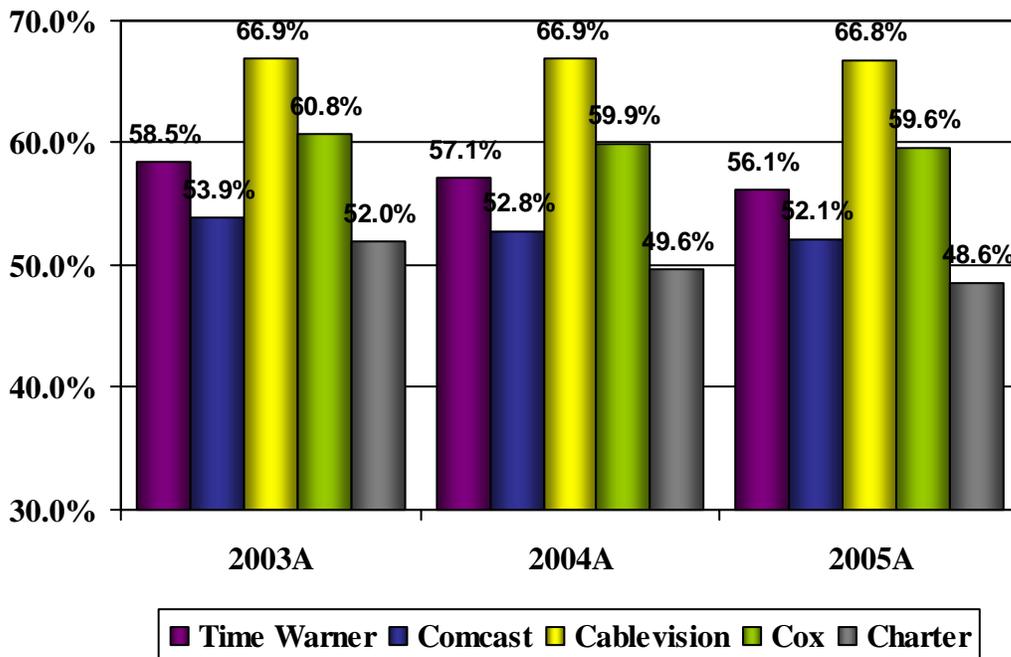




High-Definition Television or HDTV is a digital television format delivering theater-quality pictures and Dolby® Digital 5.1 surround sound. Cablevision began delivering HD service in earnest to customers in 2002, and deployment has been steady. Currently, Cablevision offers a channel line-up of exclusive HDTV content that includes channels such as ESPN, HBO, Showtime, TNT, all the major broadcasting networks, as well as other smaller cable channels. In early 2005, Cablevision sold off its VOOM satellite business for \$200 million to EchoStar. Up to this point, Cablevision was able to compete with an HDTV package that was effectively unmatched in the industry, though considered by industry insiders as being cost prohibitive to even Cablevision’s attractive demographics.

Cablevision’s video subscriber numbers have remained relatively flat over the past three years, achieving growth rates of -0.7%, 0.7%, and 2.2% respectively. Churn rates have seriously impacted subscriber growth, as DBS operators have driven pricing down in overlapping markets. Our forecasts reflect the DBS pricing pressure, as well as the Verizon FiOS threat going forward. While there are very few major markets that actually have two competing cable operators competing against each other, the versatility and cost effectiveness of the satellite operators have created a very tough environment to increase subscriber count. As we see in exhibit two, basic subscriber penetration is higher than all other competitors, which can be both a positive and a negative for Cablevision. Going forward it will mean that Cablevision will need to generate higher ARPU numbers to counteract a potential increase in customer churn due to a saturation of potential subscriber base.

### Exhibit Two: Basic Subscriber Penetration

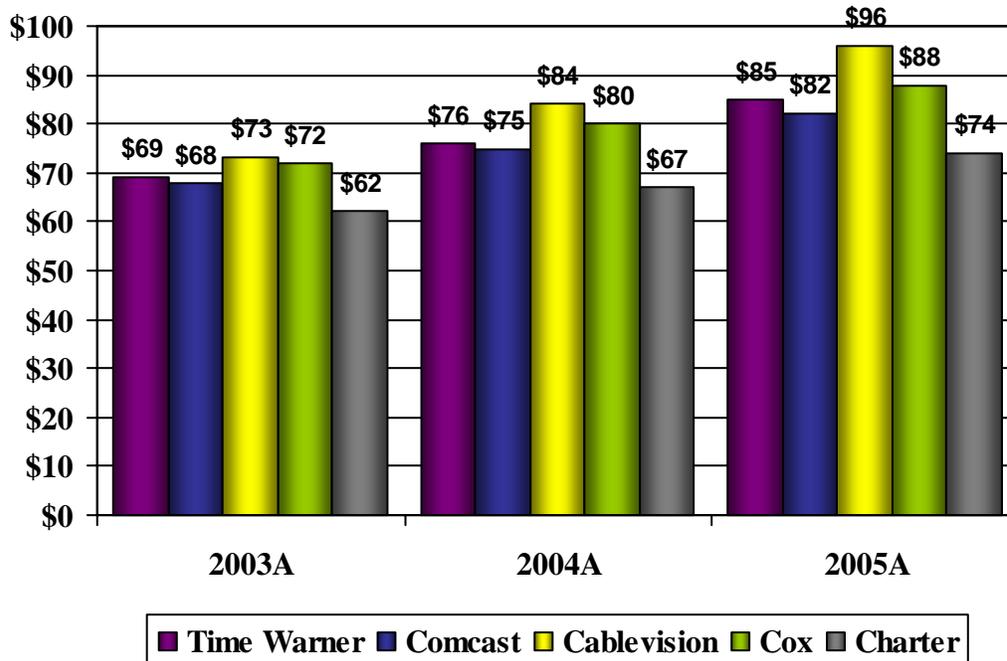


Source: Lazard Frere & Company Reports



Taking a closer look at Cablevision's ARPU numbers, we again revisit our thesis, CVC has nowhere to go but down. They are head and shoulders above competition, much of which has to do with their accelerated VoIP roll-out strategy, which we will discuss later.

### Exhibit Three: Average Revenue Per Subscriber



Source: Lazard Frere & Company Reports

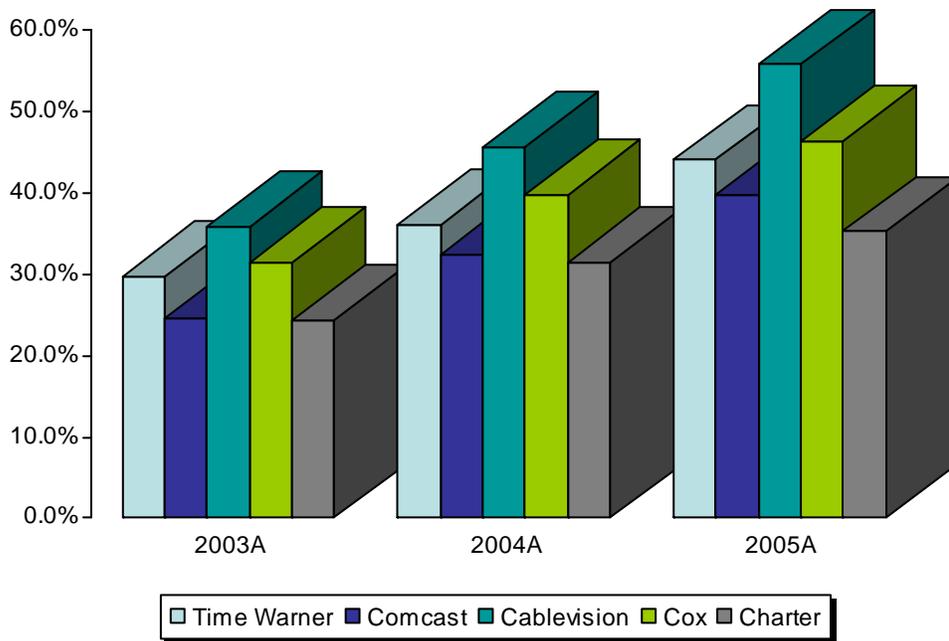
So what of the impending telecom invasion? Cablevision will be the first to be tested, as Verizon's FioS cable service has recently begun service in areas already serviced by Cablevision. Although a very small sample size, it has been closely watched by industry insiders across the board. Fourth quarter numbers provided by Cablevision indicate that there has been no effect on net additions for the quarter, and in fact their subscriber numbers have increased on a net basis compared to previous quarters. While hardly a telling sample, this does indicate that cable operators can withstand the telecom invasion. Looking at the overall competitive environment, we have to realize that the telecom threat comes with a number of disclaimers. Unlike the DBS operators, they cannot compete with exclusive content, i.e. the NFL package. They are already entering into a highly competitive pricing environment, and their market share has to be carved out with overly aggressive pricing structures which may not support the capital expenditures needed to build out the fiber to the home network. These build-out costs have been highlighted in recent press as being not nearly as cost effective as the telecom carriers would have helped.



### High Speed Data:

The data aspect of the business will be not only sensitive to pricing pressure from an enhanced FiOS data offering, but also to subscriber saturation. Just as with the video subscribers, Cablevision holds a considerable advantage to its peers when comparing high speed data penetration rates. See exhibit four for a breakdown of the leading MSOs and their current high speed internet penetration rates.

### Exhibit Four: High Speed Internet Subscriber Penetration



Source: Lazard Frere & Company Reports

As of the end of 4Q05, Cablevision had a total of 1.7 million high speed internet customers, representing a 25.3% annual growth rate over the 2004 year end figure. Going forward we are projecting a CAGR of 14%, which is line with company guidance, again a figure we found to be accurate historically. These growth estimates are also in line with Wall Street estimates, which we often found to be close to managements guidance as well.

As mentioned in our industry report “All Bundled Up and Ready to go” Wall Street analysts and industry insiders believe that there will be two data pricing models that will potentially emerge. First of which is the “utility model” where consumers pay for bandwidth consumed. The second would be the “pay twice” model where Internet users would have to pay for enhancing performance of their website/services. Both of these models will enable operators such as



Cablevision to increase their data profitability.<sup>6</sup> The real question remains, can Cablevision maintain data ARPUs that already show signs of slipping. Furthermore, can they maintain a seemingly unsustainable growth rate for their high speed internet subscriber base?

Our main concerns with the Cablevision data business are aggressive DSL pricing, the advent of the new telecom technology which could be significantly faster than Cablevision's offering, and what the need for increased Mbps (megabits per second) will cost Cablevision in terms of additional capital expenditures. Aggressive DSL pricing is a going concern, but alleviated by the fact that DSL customer satisfaction is much lower than that of a cable modem customer. The service is slower, less reliable, and by all accounts less convenient than the bundled offering Cablevision puts out. That being said, with DSL prices creeping around and below \$19.99, there the threat of increased customer churn becomes increasingly real. If in fact the Verizon FiOS data offering is as fast as speculated, Cablevision could face the very expensive need of upgrading existing networks. In the end, it really amounts to customer preference. If the consumer wants blinding speed, Verizon may very well eventually hold the advantage. If the consumer wants the convenience of the bundled package as well a reduced pricing structure (which Cablevision will eventually be able to offer in comparison to more expensive FiOS pricing), than Cablevision should win the day.

## **Voice over Internet Protocol (VoIP):**

In the past two years, Cablevision has begun to compete successfully with the Regional Bell Operating Companies (RBOCs) with the third aspect of their triple play bundle. They are launching Voice over Internet Protocol (VoIP) service throughout their geographic footprint, and doing so with unprecedented success in the cable industry.

As a quick primer on how the technology works: through the use of software, VoIP provides all of the functionality of the public switched telephone network (PSTN), while making possible new features not available through traditional circuit-switched telephony. Calls are placed over an IP-based data network and voice is transmitted with data "packets." The IP data packets used by services from some of the Internet telephony providers travels over the public Internet. Facilities-based cable offerings, in contrast, transport IP data packets over their private managed IP networks with end-to-end quality of service monitoring (while still interconnecting with the PSTN as necessary).

The roll-out of the VoIP product line is one of the few instances where the Dolans treatment of CVC as a private company actually helped them in the long run. In 2002, prior to this roll-out, the cable industry was being heavily criticized for their excessive capital expenditures. The expensive network costs and constant needs to upgrade had many skeptical about the idea of VoIP. Many analysts and industry insiders felt it was just another money pit for the cable operators to dump potential free cash flow into. The Dolans, who cared very little about what the public markets felt about them (as evidenced with our prior timeline), went ahead and

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<sup>6</sup> Wachovia Securities, Cable Industry Overview

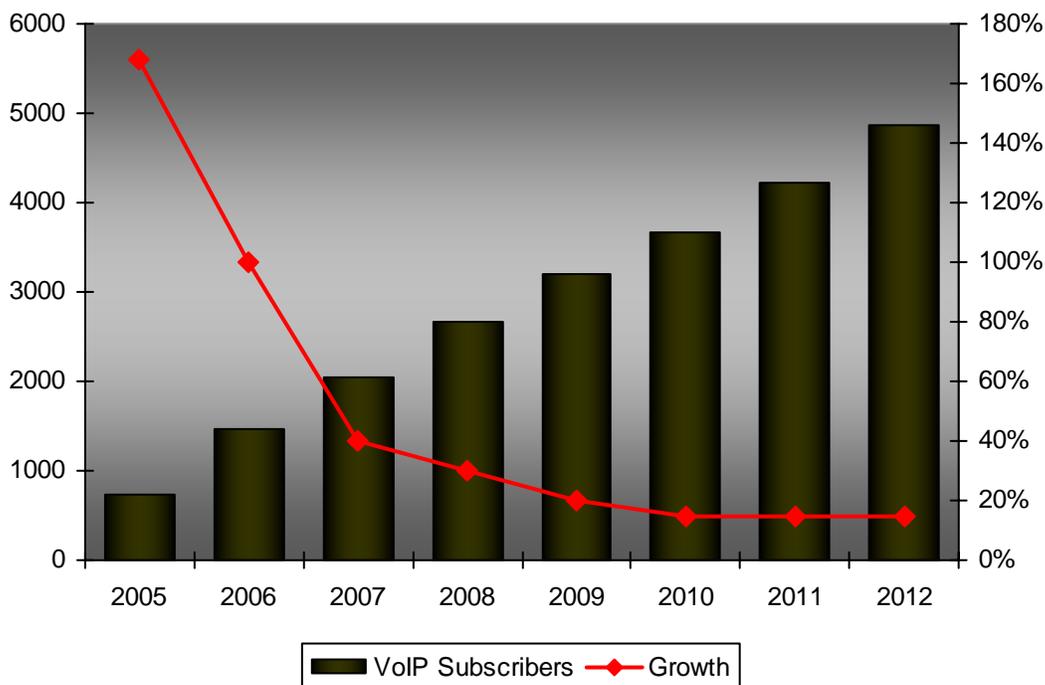


aggressively pursued the roll-out while others like Comcast took a much less aggressive approach. The aggressive move paid off. Today close to 25% of all basic subscribers receive VoIP service, a penetration rate that is unmatched in the industry.

While there is a concern that the VoIP service is already commoditized, Cablevision can steal away Verizon subscribers by competing on price, which in turn eats away at the bread and butter of the RBOC subscriber base. Verizon needs these subscribers more than Cablevision does, because quite simply they have not yet captured the video market and cannot offer a bundled service offering. Therefore, the sooner the bundled service becomes more popular, the more Cablevision will benefit from its first-mover advantage.

It's our overall belief that while overall subscriber growth may stay stagnant, those who remain with Cablevision will subscribe to the bundled service play, for convenience as well as pricing issues. Below in exhibit five we show our VoIP projections going forward, they are slightly conservative to those on the Street, which we felt were slightly aggressive and took a bit too much faith in the adoption of the triple play bundle.

**Exhibit Five: VoIP Projected Growth 2005A – 2012E**





## ***Competitive Analysis:***

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### **Industry Competitors & Rivalry – Very High:**

As mentioned previously, Cablevision will be first to the test their video product against Verizon. Already being squeezed by increasingly aggressive DBS operators, CVC will have be kept busy by the Verizon invasion. Cablevision now offers video content, broadband access and phone service. With each service they compete against different competitors. Broadband service pits Cablevision against the likes of the telecom carriers offering DSL, and VoIP pits them against both major telecom service providers as well as smaller service providers such as Vonage. The competitive environment for Cablevision is extremely crowded, and due to the fact that their subscriber demographics are so attractive, this does not look like it will subsist anytime soon.

### **Threat of New Entrants – Medium to High:**

Because of the capital intensive nature of the actual development of a cable network, threat of new cable operators is relatively low. Most cable networks have a fiber to the node architecture. Most of these FTTN networks employ a hybrid fiber coaxial network, where optical fiber is used for the backbone and coaxial cable is distributed between the backbone and the individual users. Quite simply, the build out of these networks is cost prohibitive, and the only way for a new entrant to enter the fray would be to compete on price for customers. This would prove to be suicidal for all but the deepest of lined pockets (which do not currently exist) given the fact that the upfront capital expenditures would be need to be paid down and competing on price would do little to do such a thing. Such strategies such as ones used by RCN in the Northeast have been employed in the past, but they have yet to be successful.

This is not to say that certain products of the Cablevision offering will not see increasingly intense competition in the upcoming years. Video content and communication is fast becoming the next growth area for both wireline and wireless operators. Within the next three years many believe that the Regional Bell Operating Companies (Verizon, SBC) will be commercializing video offerings. UBS estimates that Verizon and SBC will spend \$11 billion in the next six years, including \$5 billion in the next three years, all earmarked to build out a video offering. The fiber to the home strategy employed by the RBOCs is an aggressive move with a defense mechanism built into it as well. If the RBOCs stand by and let Cablevision gain the upper hand with a voice over internet protocol (VoIP) offering that is included in a triple play bundled product, they will inevitably lose considerable market share within their fixed line business. By offering a video product to bundle with wire-line and perhaps wireless service, the Verizons of the world put themselves back into the bundled services arena.

With the threat of additional entrants such as Verizon and the ensuing pricing war that will likely occur, the obvious concern is the commoditization of the video offering, which will crush margins as well as increase cable and satellite operator customer churn. As mentioned previously, we feel these are viable concerns yet they are somewhat over-hyped. The fact remains that the RBOCs will possess a higher cost structure with massive capex debt, no exclusive content, and no real competitive technical advantage. All of these factors mitigate the concern considerably. To quantify the actual risk and the uncertainty surrounding the projected



roll-out, Goldman Sachs predicts that in 2010 the RBOCs will have achieved a 4.2% penetration rate of U.S. TV households while JPMorgan believes that number will be 6.4%. In our opinion the telecom invasion will be stumble before it gains traction, and the discount already baked into low valuations in the cable sector is somewhat unfounded.

### **Barriers to Entry – High:**

As mentioned previously, the cost prohibitive nature of building out a cable network creates a drastic barrier to entry. Switching costs are not prohibitive, but there is a considerable cost for the operator to absorb in terms of set-top boxes.

On the whole, residents have become accustomed to accepting the duopoly of a cable operator and a satellite operator as their choice for video. Calculated intrusions into the market such as an RCN overbuild strategy, or even a telecom video strategy need to offer a strong value proposition, such as a bundled offering, which is tremendously difficult to offer with an existing established network.

### **Availability of Substitutes – Medium:**

Due to the recent development of network television content being allowed by network broadcasters to be downloaded to your iPod or iTunes account, substitution is a growing concern for operators such as Cablevision. Video content transmitted through cell phones can also be considered an available substitute. As the cell phone technology allows for faster downstream transmissions in the next few years, content offering will grow and the user experience will get better and better. Is this a substitute for sitting in your living room at home and watching your favorite show? Our bet is that it won't. It does, however, create an alternative for viewers to watch their favorite show while they are on the road, on the train on their daily commute, or just away from home and looking to kill some time. Much like the DVD vs. movie experience, one is a little more of a ritual than the other (movies at the theater, watching TV at home), but one just that much more convenient (DVDs at home, watching TV on your iPod or laptop).

### **Supplier Power – Medium:**

Cablevision has been experiencing a number of rate hikes in the past year from major content providers such as HBO and ESPN, but on the whole it behooves the content provider to push their product out to as many viewers as possible. HOWEVER, it should be noted that content costs have been an issue over the last 5 years, may have cooled off as of late, but could become a huge problem over the next 2 years. This problem would mainly be driven by the major networks – ABC, CBS, NBC and FOX who don't charge fees to the MSOs for broadcast rights. This is a practice that goes back to the days when the FCC gave these networks broadcast licenses (a license to transmit the signal over the airwaves) and the networks tried to monetize their signal by selling ad time – now that the country is largely converted to digital and nobody gets the networks over antennas anymore, the networks have started to talk about why they should be any different than any other TV network that charges the cable company a transmission fee (i.e. ESPN charges Cablevision approximately \$3/sub/month). This is conceptually a fair point of view, and the first of these deals to come up for renewal is CBS next year. CBS Chairman Les Moonves has been very verbal that he will demand payment from the MSOs or he will pull the signal. Investors in CBS stock believe that he will win this fight, we



are skeptical but do believe it is a significant concern. This could represent massive fees to be paid by the likes of Cablevision. As a point of reference, the telecom providers have agreed to pay fees to the networks as part of their content deals for their TV service, so the precedent has been set.

## **Buyer Power – Medium to High:**

With each additional service offering, and with each discounted bundling, buyer power increases and the consumer gains more and more leverage. While many will have to get used to the fact that video content will not be controlled by duopoly any longer, both choices and substitutes will be heavily marketed by competitors desperate to increase market share and will make this transition easy. The traditional unexplained rate increases by our cable providers such as Cablevision should cease to exist in the near future, as there will be an increased focus on the customer. Furthermore, bundled services should continue to be discounted heavily, and will only come down in price as telecom providers enter the landscape.

## *Key Drivers of Demand*

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- **Maintenance of Extraordinary Growth Rates:** With basic subscriber numbers reaching industry high penetration rates, average revenue per user must increase for Cablevision to keep pace. Margins have to increase on all vertical services as key capital expenditures have already been built out, and Cablevision has stronger operating metrics than anyone else in the industry. Can they keep this up or is there a saturation point?
- **On-Demand and Pay-Per-View Lineup:** Just as with any other cable operator, Cablevision will need to depend on an enhanced video on demand line-up going forward, and the utilization of consumer home theater set-ups to bring the cinema home to the living room. These services are high-margin, and are vital to driving healthy ARPU numbers.
- **Success vs. Verizon and Adoption of Triple Play Offering:** Consumers will need to see the value and convenience of the bundled service play that Cablevision offers. Given Cablevision has enormous subscriber exposure to the Verizon service offering (22% of basic subscribers) they will be the first to see if they hold onto valuable subscribers. The bottom line is that consumers will now more than ever be likely to choose one carrier for all their communications needs. Can Cablevision compete against the Verizon holy grail of four services (wireless, VoIP, cable, and internet)?
- **Consumer Adoption of HDTV:** Current subscriber penetration has been ramping up considerably. Increased penetration equals both an increased ARPU and a greater tendency to purchase from an on-demand selection that mimics the theater experience. With the sale of the Voom satellite service that was almost exclusively HDTV content, Cablevision has whet the consumer's appetite for high definition television, and then taken it away. The major and cable networks continued rollout of content could be vital to HDTV adoption.



### ***Concerns Going Forward:***

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- **Management Irrationality:** The Dolans. Enough said. We have no idea of what to expect from management. In a few years, Cablevision could very well be a very attractive LBO candidate – or it could be buried in additional debt the Dolan’s have incurred to pay out dividends to themselves, it really is a wildcard.
- **Saturation of the Subscriber Base:** We are concerned that penetration rates are high and susceptible to significant churn going forward. Part of the investor mentality in the past has been to reward based on potential, and in the future Cablevision has limited upside and a very big downside. How will Wall Street react to a business that could be holding serve,
- **The Verizon FiOS threat:** The telecom video threat is very real and very imminent. How Cablevision is able to manage SG&A costs in competing areas, as well as hold on to their own customers will be a key test to the sustainability of the business itself.
- **Alternative Businesses:** How will MSG and Rainbow fare in the future. The mean value of sports franchises is a constantly fluctuating number. Will the Dolans sell high at some point? Furthermore, the current mismanagement of the New York Knicks has got to raise a red flag, with the highest payroll in the NBA they are consistently finishing at the bottom of the standings – losing valuable playoff revenue and robbing the Madison Square Garden of any type of excitement.



## ***Valuation***

### **Methodology**

On April 7<sup>th</sup>, Cablevision announced that its Board of Directors approved a \$10 per share special dividend payable April 24<sup>th</sup>. To finance this special dividend Cablevision issued \$3 billion in debt. This leveraging of the balance sheet to pay out a dividend will significantly raise the debt to equity ratio for 2006 as compared to 2005. After 2006 we anticipate Cablevision will start reducing debt levels to reduce its interest burden and bolster its balance sheet. Our thesis that Cablevision will begin reducing debt is based on the fact that Cablevision has a high degree of below investment grade debt and will start generating positive free cash flow in 2006. Therefore we opted to use the adjusted present value as our primary valuation methodology to account for the changing debt to equity ratio.

### **Income Statement Assumptions**

#### **Telecommunications Revenue Growth**

We projected telecommunications revenue based on total basic subscribers and average revenue per basic subscriber. Telecommunications revenue comprises Cablevision's video, voice and internet divisions. Our telecommunications revenue projection for 2006 is generally in line with management's guidance. Management has been fairly good at hitting revenue growth targets over the last three years. (see exhibit 1)

- **Basic Subscribers:** We projected annual basic subscriber growth of 2% through 2012. This rate coincides with recent historical growth rates and the fact that Cablevision has heavily penetrated its footprint allowing for minimal incremental growth.
- **Average Revenue per Basic Subscriber/Month:** The availability of the triple play and increasing demand for additional services (VOD, HDTV, DVR) will drive ARPU/Month higher through 2008. Thereafter, we believe that Verizon's FIOS will become a formidable competitor. Verizon's strong push into the video segment, its significant footprint overlap, and its ability to offer a lower price point will pressure Cablevision's average revenue per basic subscriber. As such, ARPU/month will increase from \$112 in 2006 to \$125 in 2008. In 2008 ARPU/month will stabilize at \$125 and hold constant through 2012.

#### **Rainbow and Madison Square Garden Revenue Growth:**

- **Rainbow Revenue:** We project annual revenue growth of 5% through 2012 in line with management guidance and historical trends.
- **Madison Square Garden:** We project annual revenue growth of 3% through 2012.



<b>REVENUE MODEL</b>							
(in thousands)	2006	2007	2008	2009	2010	2011	2012
Video Subs	3,088	3,149	3,212	3,277	3,309	3,342	3,376
yoy growth	2%	2%	2%	2%	1%	1%	1%
High Speed Data Subs	1,948	2,241	2,577	2,963	3,260	3,586	3,944
yoy growth	15%	15%	15%	15%	10%	10%	10%
VoIP Subs	1,463	2,048	2,662	3,194	3,673	4,224	4,858
yoy growth	100%	40%	30%	20%	15%	15%	15%
Total RGU	6,499	7,438	8,451	9,434	10,242	11,153	12,178
yoy growth	19%	14%	14%	12%	9%	9%	9%
Avg Rev Per Basic Sub/Mon	112.00	120.00	125.00	125.00	125.00	125.00	125.00
<b>Telecommunications Rev</b>	<b>4,149,654</b>	<b>4,534,979</b>	<b>4,818,415</b>	<b>4,914,783</b>	<b>4,963,931</b>	<b>5,013,570</b>	<b>5,063,706</b>
yoy rev growth	15%	9%	6%	2%	1%	1%	1%
<b>Rainbow Revenue</b>	<b>870,444</b>	<b>913,966</b>	<b>959,664</b>	<b>1,007,647</b>	<b>1,058,030</b>	<b>1,110,931</b>	<b>1,166,478</b>
yoy rev growth	5%	5%	5%	5%	5%	5%	5%
<b>Madison Sq Garden Rev</b>	<b>828,527</b>	<b>853,383</b>	<b>878,984</b>	<b>905,354</b>	<b>932,514</b>	<b>960,490</b>	<b>989,304</b>
yoy rev growth	3%	3%	3%	3%	3%	3%	3%
<b>All Other</b>	<b>-65,000</b>						
<b>Total Revenues</b>	<b>5,783,624</b>	<b>6,237,327</b>	<b>6,592,063</b>	<b>6,762,784</b>	<b>6,889,475</b>	<b>7,019,991</b>	<b>7,154,488</b>
yoy growth	12%	8%	6%	3%	2%	2%	2%

**Expense Growth:**

We projected annual expenses as a constant percentage of sales in line with its 3 year average. Over the last three years Cablevision has reported SG&A and technical & operating expenses as a percentage of sales within a tight range. Therefore, we were comfortable using the three year average of 25% for SG&A and 46% for technical and operating expenses.

**Depreciation and Amortization:**

We projected depreciation and amortization expense as a constant percentage of PP&E in line with its 3 year average. Once again, this line item has been relatively constant historically. Therefore we were comfortable using the three year average of 26% through 2012.



<b>INCOME STATEMENT</b>							
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Revenues, net</b>	<b>5,783,624</b>	<b>6,237,327</b>	<b>6,592,063</b>	<b>6,762,784</b>	<b>6,889,475</b>	<b>7,019,991.3</b>	<b>7,154,488.3</b>
Technical and operating (excluding as % of revenues)	2,667,412 46%	2,871,972 46%	3,000,364 46%	3,103,662 46%	3,156,596 46%	3,211,078 46%	3,278,015 46%
Selling, general and administrative as % of revenues	1,484,569 26%	1,574,829 25%	1,667,565 25%	1,718,051 25%	1,744,174 25%	1,778,808 25%	1,813,906 25%
Other expenses as % of revenues	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Depreciation and amortization (including as % of PPE)	968,728 26%	962,859 28%	906,216 27%	853,483 27%	818,067 27%	774,800 27%	735,373 27%
<b>Operating Expenses</b>	<b>5,120,709</b>	<b>5,409,660</b>	<b>5,574,144</b>	<b>5,675,197</b>	<b>5,718,837</b>	<b>5,764,686</b>	<b>5,827,294</b>
<b>Operating income</b>	<b>662,915</b>	<b>827,667</b>	<b>1,017,919</b>	<b>1,087,588</b>	<b>1,170,638.3</b>	<b>1,255,306</b>	<b>1,327,194</b>
Gain/Loss on der, affiliates, investments and	0	0	0	0	0	0	0
<b>EBIT</b>	<b>662,915</b>	<b>827,667</b>	<b>1,017,919</b>	<b>1,087,588</b>	<b>1,170,638</b>	<b>1,255,306</b>	<b>1,327,194.1</b>
yoy growth	21%	25%	23%	7%	8%	7%	6%

## Balance Sheet Assumptions

### Cash and Equivalents and Accounts Receivable:

Cash and cash equivalents and accounts receivable are projected to grow as a constant percentage of sales in line with historical averages. Historically, current asset levels have remained at a relatively constant percentage of sales. Therefore we were comfortable using the three year average of 8% for both cash and equivalents and accounts receivable.

### Plant, Property and Equipment:

We projected -5% growth per annum in PP&E. This growth rate reflects the fact that the majority of Cablevision's infrastructure has been built. The primary growth driver of PP&E going forward will be expenses related to subscriber growth.

### Accounts Payable:

We calculated accounts payable growth based on a constant percentage of sales. Accounts payable as a constant percentage has been relatively stable over the last few years. Therefore we used the three year average of 7%.

### Debt:

For 2006, we added \$3 billion in debt to account for the increase in leverage associated with the one time dividend. After 2006, we believe Cablevision will aggressively pay down debt from its free cash flow. We estimate that 50% of free cash flow will go to pay down debt until 2012. We reason that Cablevision will pay down debt since it has a high degree of below investment grade debt increasing its interest burden and capital expenditures are declining.



<b>DEBT LEVEL</b>							
	2006	2007	2008	2009	2010	2011	2012
FCF to equity	998,896	840,329	933,904	944,227	1,002,427	1,061,419	1,116,481
% to pay down debt		50%	50%	50%	50%	50%	50%
<b>Debt</b>	<b>11,666,573</b>	<b>11,246,409</b>	<b>10,779,456</b>	<b>10,307,343</b>	<b>9,806,130</b>	<b>9,275,420</b>	<b>8,717,180</b>

<b>BALANCE SHEET</b>							
	2006	2007	2008	2009	2010	2011	2012
Cash and cash equivalents	462,690	498,986	527,365	541,023	551,158	561,599	572,359
as % of revenues	8%	8%	8%	8%	8%	8%	8%
Accounts receivable, trade (less	462,690	498,986	527,365	541,023	551,158	561,599	572,359
as % of revenues	8%	8%	8%	8%	8%	8%	8%
Other Current Assets	1,445,906	1,559,332	1,648,016	1,690,696	1,722,369	1,754,998	1,788,622
as % of revenues	25%	25%	25%	25%	25%	25%	25%
<b>Total current assets</b>	<b>2,371,286</b>	<b>2,557,304</b>	<b>2,702,746</b>	<b>2,772,742</b>	<b>2,824,685</b>	<b>2,878,196</b>	<b>2,933,340</b>
Property, plant and equipment, net of	3,674,673	3,490,939	3,316,393	3,150,573	2,993,044	2,843,392	2,701,222
yoy growth	-5%	-5%	-5%	-5%	-5%	-5%	-5%
Other Non Current Assets	4,337,718	4,677,995	4,944,047	5,072,088	5,167,106	5,264,993	5,365,866
as % of revenues	75%	75%	75%	75%	75%	75%	75%
<b>Total Assets</b>	<b>10,383,677</b>	<b>10,726,239</b>	<b>10,963,186</b>	<b>10,995,403</b>	<b>10,984,835</b>	<b>10,986,582</b>	<b>11,000,429</b>
yoy growth	5%	3%	2%	0%	0%	0%	0%
Accounts payable	404,854	436,613	461,444	473,395	482,263	491,399	500,814
as % of revenues	7%	7%	7%	7%	7%	7%	7%
Other Current Liabilities	2,429,122	2,619,677	2,768,667	2,840,369	2,893,580	2,948,396	3,004,885
as % of revenues	42%	42%	42%	42%	42%	42%	42%
Non current Liabilities	533,482	574,394	600,073	620,732	631,319	642,216	655,603
as % of revenues	20%	20%	20%	20%	20%	20%	20%
<b>Debt</b>	<b>11,666,573</b>	<b>11,246,409</b>	<b>10,779,456</b>	<b>10,307,343</b>	<b>9,806,130</b>	<b>9,275,420</b>	<b>8,717,180</b>
<b>Total Liabilities</b>	<b>15,034,031</b>	<b>14,877,093</b>	<b>14,609,640</b>	<b>14,241,840</b>	<b>13,813,292</b>	<b>13,357,431</b>	<b>12,878,482</b>
<b>Shareholders' Equity</b>	<b>-4,650,354</b>	<b>-4,150,854</b>	<b>-3,646,454</b>	<b>-3,246,437</b>	<b>-2,828,456</b>	<b>-2,370,849</b>	<b>-1,878,053</b>

## Adjusted Present Value Analysis

### Present Value of Equity Cash Flows:

$$\text{Unlevered Beta} = \text{Beta}(\text{levered}) / (1 - (1 - \text{Tax rate}) * (\text{Debt}/\text{Equity}))$$

We regressed the last 60 months of Cablevision returns versus a value weighted market index to determine its equity beta. This analysis yielded an equity beta of 1.78. We were comfortable using the equity beta of 1.78 given the relatively stable debt to equity ratio through the calculation period. Additionally, we calculated a 60 month rolling average over ten years illustrating a steady increase. We then used the historical equity beta and the historical beta to calculate an unlevered beta with the above formula. This gave us our unlevered beta of 1.07.



Cost of Equity:  $= R_{free} + \text{Beta}(\text{unlevered}) * \text{Risk Premium}$

To determine the cost of equity we used the CAPM formula. We calculated the risk free rate of 4.01% by trimming the 10 year T-Bill by the historical risk premium of one percent. We selected a risk premium of 7% representing the markets historical excess return. We calculations gave us a cost of equity of 11.5%.

<b>Unlevered beta calculation</b>	$\text{Beta}/(1+(1-T)*D/E)$
Current Beta	1.78
Mkt Value of Debt	8,666,573
Mkt Value of Equity	8,090,000
D/E	107%
Tax rate	39%
Unlevered Beta	1.07
<b>Cost of equity calculation</b>	$R_{free} + U\text{beta} * \text{Risk Premium}$
10 Year Treasury Yield	5.01%
Historical risk premium	1.00%
Risk free rate	4.01%
Risk Premium	7.00%
Unlevered Cost of Equity	11.5%

PV of equity cash flows

Based on our revenue and expense assumptions (detailed above) we derived the earnings before interest and taxes through 2012. We tax effected the earnings before interest and taxes and discounted it at the cost of equity. We used a terminal growth rate of 3%. We projected capital expenditures to decline steadily reflecting Cablevision’s built out infrastructure. We built in a slight cushion to management’s capital expenditures guidance to account for management’s historical record of underestimated capital expenditures. (see exhibit 1)

<b>Present value of equity cash flows</b>	1	2	3	4	5	6	7
	2006	2007	2008	2009	2010	2011	2012
EBIT	662,915	827,667	1,017,919	1,087,588	1,170,638	1,255,306	1,327,194
Tax rate	0%	39%	39%	39%	39%	39%	39%
After tax EBIT	662,915	504,877	620,930	663,428	714,089	765,736	809,588
Capital Expenditures (-)	750,000	700,000	650,000	600,000	550,000	500,000	450,000
Depreciation (+)	968,728	962,859	906,216	853,483	818,067	774,800	735,373
Change in WC	-117,253	-72,592	-56,758	-27,315	-20,271	-20,883	-21,520
FCF to equity	998,896	840,329	933,904	944,227	1,002,427	1,061,419	1,116,481
PV(of Equity CF through 2010)	\$3,986,684						
Terminal growth rate		3%					
Terminal Value			\$13,084,711				
PV of Terminal Value			\$6,797,519				
<b>PV of equity cash flows</b>			<b>\$10,784,203</b>				



**Present Value of Debt Tax Shield:**

PV of annual interest tax shields:

To determine the present value of the debt tax shield we projected debt levels through 2012. We then used the market rate on Cablevision's outstanding debt to determine the interest payments. Next, we used the historical default rate on BBB bonds to determine the default adjusted interest expense through 2012. We multiplied this figure by the tax rate to determine the debt tax shield per year. Since the debt on the balance sheet is below investment grade, we added a 150bp premium to the risk free rate to derive the cost of debt.

<b>Present value of tax shield</b>	1	2	3	4	5	6	7
	2006	2007	2008	2009	2010	2011	2012
Debt	11,666,573	11,246,409	10,779,456	10,307,343	9,806,130	9,275,420	8,717,180
Interest @ 8.5%	991,659	955,945	916,254	876,124	833,521	788,411	740,960
Historical default rate(1)	12%	12%	12%	12%	12%	12%	12%
Default adjusted interest	872,660	841,231	806,303	770,989	733,498	693,801	652,045
Tax rate	0%	39%	39%	39%	39%	39%	39%
Interest tax shield	0	328,080	314,458	300,686	286,064	270,583	254,298
Cost of debt	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%
PV of tax shield	0	289,255	260,324	233,730	208,793	185,439	163,642
PV of terminal value of tax shield	\$7,265,645						
<b>Total PV of tax shield</b>	<b>\$8,443,186</b>						

**Derived Equity Value:**

As stated earlier, our equity value was determined by adding the present value of the all equity cash flows to the present value of the debt tax shield, and then subtracting out the market value of the debt.

Total PV of tax shield	\$8,443,186
Total PV of equity cash flows	\$7,265,645
<b>Adjusted present value</b>	<b>\$19,227,389</b>
Market Value of Debt	\$11,666,573
<b>Derived Equity Value</b>	<b>\$7,560,816</b>
<b>Current Market Capitalization</b>	<b>\$8,090,000</b>
<b>Percent Return</b>	<b>-7%</b>



Exhibit 1

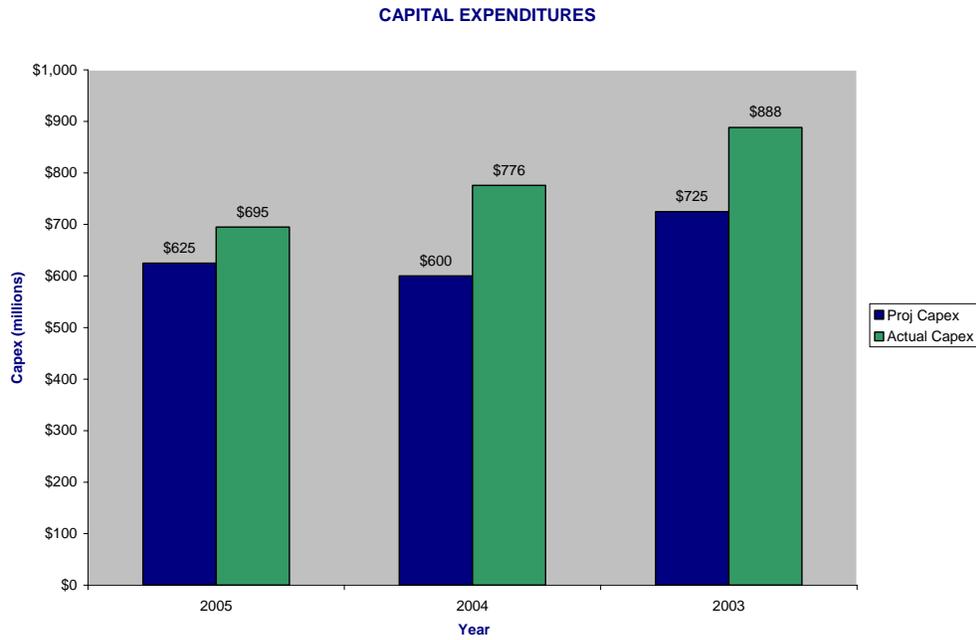


Exhibit 2

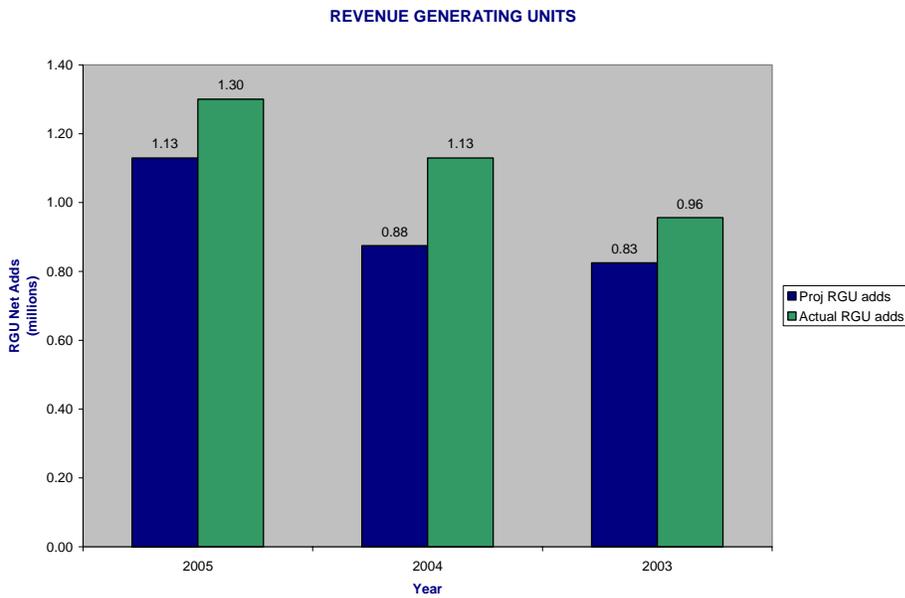
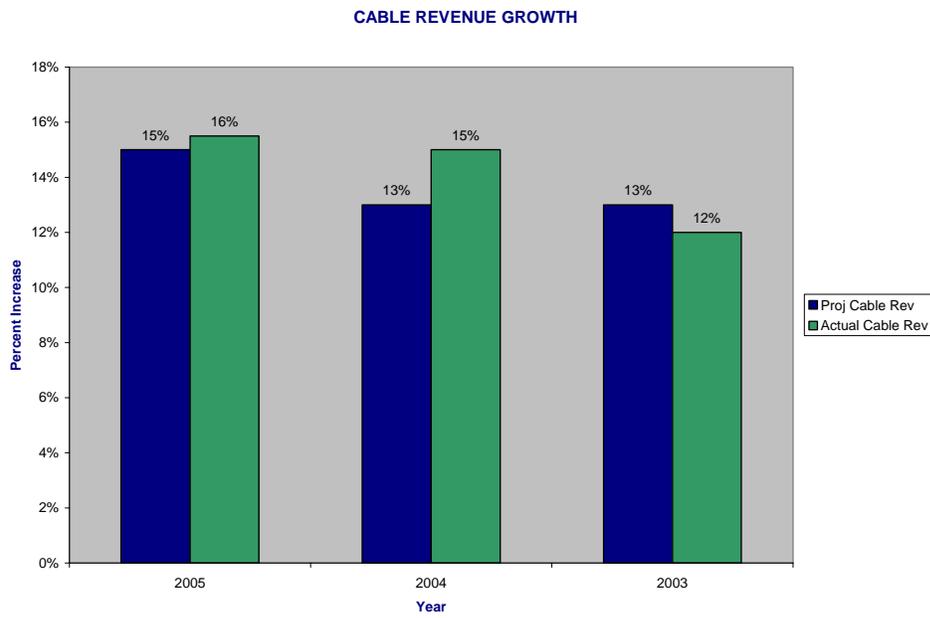




Exhibit 3





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