

RUTGERS Student Research

Christopher Ulz

Comcast Corp.

April 16, 2004

Ticker: CMCSA
Price: \$30.19

Recommendation: BUY
Price Target: \$36.85

Analyst Certification:

I, Christopher Ulz, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers.

EBITDA/Share

	Mar.	Jun.	Sept.	Dec.	Year
2003A	\$0.73	\$0.81	\$0.73	\$0.76	\$3.03
2004E	\$0.83	-	-	-	\$3.54
2005E	-	-	-	-	\$4.15

Highlights

- **Strong competitive positioning:** Although the landscape is highly competitive in all segments of business, the ability to offer multiple services at bundled pricing gives CMCSA a significant advantage.
- **Successful AT&T broadband integration:** CMCSA improved profitability, increased the number of basic subscribers reversing a 3 year trend of losses, and accelerated their upgrade program increasing confidence in management's abilities.
- **Future growth opportunities:** Although basic cable growth is insignificant, high-speed Internet and digital cable revenue increased 73% in 2003. In addition future growth will continue based on HDTV, VOD, and VOIP technologies.
- **Unparalleled industry presence:** CMCSA is twice the size of their nearest competitor. In 2003 they managed to keep the growth of their largest expense, programming, to below 3% when compared to 2002.
- **Strong balance sheet:** CMCSA managed to increase total shareholder equity by 8.7% and reduce debt by 22.7% further strengthening their balance sheet.



Market Profile

52 week price range	\$36.50 – \$27.76
Average Daily Volume	673,900
Dividend Yield	0.0%
Shares Outstanding	2.25 B
Market Capitalization	67.97 B
Institutional Holdings	36.61%
Insider Holdings	6.41%
Debt to Equity	0.648
Return on Equity	-0.55%

Investment Summary

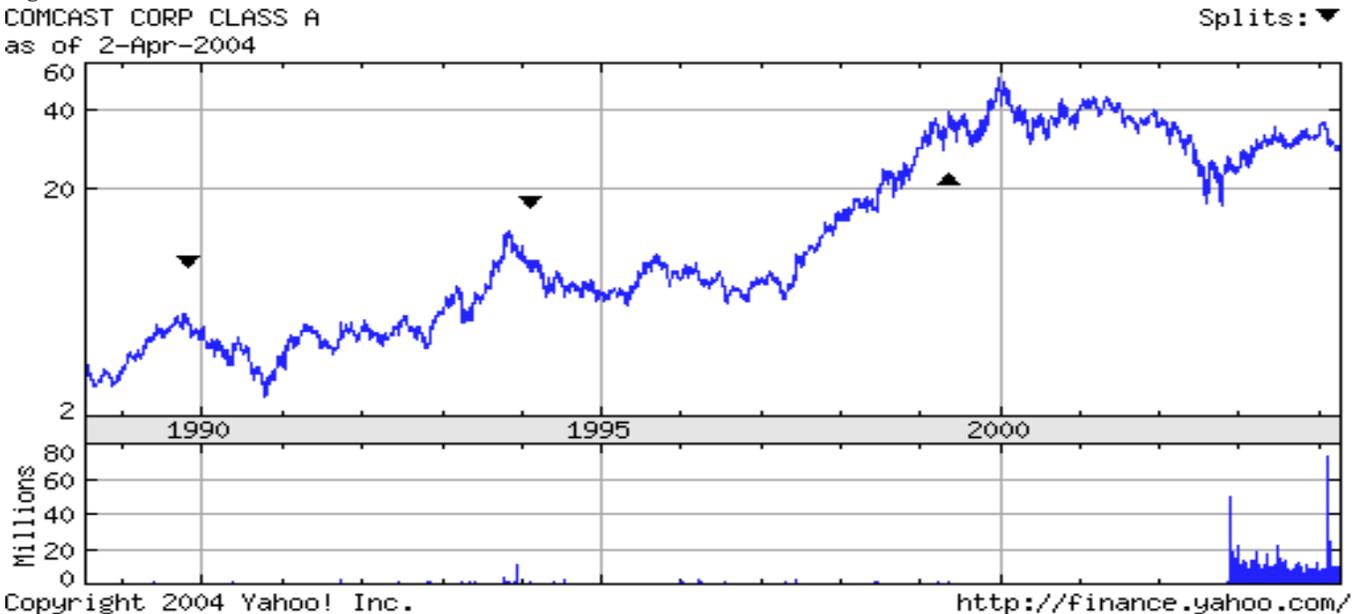
Our BUY recommendation is derived from our Price to EBITDA valuation model, in conjunction with our views of CMCSA competitive position, and other metrics. From an Enterprise Value (EV) to EBITDA perspective, the stock appears to be undervalued. For 2003 CMCSA is in line with the cable industry average of 11.1X. However, looking forward, CMCSA multiples are lower. 9.0X for 2004, compared to 9.6X for the industry. In addition, from a Price to EBITDA perspective, the 2003 multiple for CMCSA was 10.9X, which is in line with its long run average and is lower than the industries 11.24X. Looking forward, 2004 multiple for CMCSA is even lower at 8.47X implying the stock is undervalued. Expected annual growth rate comparisons for CMCSA, the industry, and the market are positive. The growth rate for CMCSA is estimated to be 17.0% for 2004 which will outperform the industry and the market, which are 3.28% and 5.65% respectively.

Comcast appears to be undervalued and this coupled with its competitive advantage, strong financials, and disciplined management make it appealing.

In addition to the compelling valuation, Comcast’s presence is unparalleled in the industry and it has a competitive advantage in bundling services. EchoStar and DirecTV are the biggest threats, but the fact that they cannot compete with high-speed Internet services in terms of data transfer speeds and price severely weakens their position. Although digital subscriber line (DSL) services are comparable, they too are at a disadvantage due to lack of the ability to offer packaged services. Also, persuading customers to switch services is inherently difficult especially when pricing is at a premium.

Competent management and a strong balance sheet also strengthen our case despite the downward pressure on its stock price based on the lingering Disney bid. In terms of the AT&T broadband integration, CMCSA was able to improve profitability, increase the number of basic subscribers reversing a 3 year trend of losses, and accelerate the system upgrade program. Also debt for 2003 was decreases by approximately 23% and shareholder equity was increased by 8.7%. The pending merger with Disney is positive based on synergies from “vertical” integration as well as the ability to dictate the convergence of technology and content. Based on conservative synergy estimates, we feel that an exchange ratio higher than 1.0 with the current stock level may be challenging for management to justify. Although this deal will be dilutive in the short term, based on the all stock offering, long term effects will be positive. This coupled with a favorable valuation, competitive advantage, strong financials, and disciplined management make CMCSA appealing.

Figure 1: Comcast’s Historical Stock Chart



Valuation

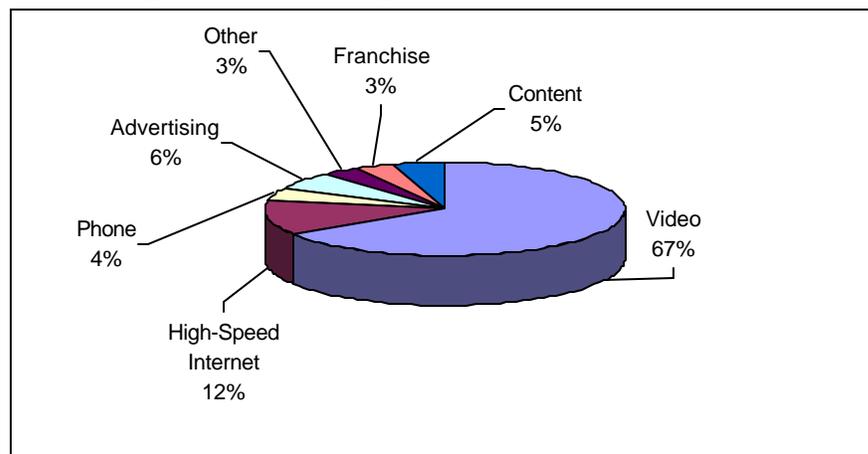
We arrive at our target of \$36.85 by applying a forward Price to EBITDA methodology. 2004 EBITDA was calculated by estimating revenue and subtracting estimated expenses. Business revenue was split into 7 segments, expenses were split into two segments, and 2003 pro forma growth rates were adjusted according to future industry trends. We applied a 10.4X long run average price to EBITDA, calculated from the past 20 years for CMCSA, to arrive at our target price.

Business Description

Comcast Corp. is involved in cable through development, operation and management of broadband communications networks, including high-speed Internet, video, and phone service as well as content through consolidated programming investments.

Comcast Corporation is involved in cable through broad band communications networks, including high-speed Internet, video, and phone service as well as content through consolidated programming investments .

Figure 2: Business Segments as a Percentage of Revenue



Cable

Over the past several years Comcast has upgraded the technical quality of their cable networks by installing fiber optic cable and digital compression technology resulting in an increase in reliability and capacity. This initiative has also allowed CMCSA to deliver additional services such as digital cable, high-speed Internet, and phone. By Dec 31, 2003, approximately 95% of their system is capable of handling two-way communications. CMCSA is the largest cable operator in the U.S. with 21.5 million subscribers in 35 states with access to 39.8 million homes, it provides digital cable to 7.7 million subscribers, high speed internet to 5.3 million, and phone service to 1.3 million subscribers (see Figure 3 for additional details).

Monthly cable subscription service is the largest contributor to revenues.

Video Services

CMCSA receives a majority of its revenue from monthly subscription services consisting of Basic, Extended Basic, Premium, Pay-per-view, and Digital. Basic programming includes 10-20 channels by national television networks, local broadcast television stations, locally-originated programming, including governmental and public access, and limited satellite-delivered programming, while Expanded Basic consists of the Basic channel line-up plus a group of satellite-delivered or non-broadcast channels. The Premium service offers, with out any interruptions, motion pictures, live and taped sporting events, concerts, and other features. Pay-per-view allows subscribers to order, for an additional fee, individual feature motion pictures as well as special events such as special boxing events and concerts on an unedited commercial-free basis. Digital service provides an interactive program guide, multiple channels of digital programming and music, "multiplexes" of premium channels that are varied as to time of broadcast or programming content theme, additional pay-per-

view programming, such as more pay-per-view options and/or frequent showings of the most popular films, video-on-demand service (VOD), high-definition television, and digital video recorders.

High-Speed Internet Services

Subscribers can connect their computers to the internet via cable modems, which are faster than conventional dial-up and DSL lines. Prior to March 2002, CMCSA marketed Internet service in areas where they did not have network coverage through third party providers. By March 2002, with an expanded network all of these high-speed Internet subscribers were moved to the Comcast system. Now, CMCSA has agreements with other third party Internet Service Providers (ISPs) in which these ISPs offer high-speed service over the Comcast system.

Phone Service

In certain areas, traditional circuit-switched local telephone service and third party long distance service is offered. In addition, 2004 marks the early stages of Voice Over Internet Protocol (VoIP) in which CMCSA now offers this service on a limited commercial basis over its cable infrastructure.

Advertising Sales

Additional revenue is generated from sales of advertising time on non-broadcast networks carried over their system as well as coordinating the advertising sales effort of other cable companies. Advertising sales is structured such that CMCSA receives an allocation of advertising time from networks and simply inserts commercials into time slots. Coordinating sales efforts have formed advertising interconnects, which establish a direct link between unaffiliated cable systems and allows for advertising across larger geographical areas.

Programming

Generally Comcast acquires a license for the programming it sells by paying a monthly fee to the licensor based on number of subscribers and number of channels. The goal is to secure long term contracts with volume discounts and/or marketing support and incentives from program suppliers. In recent years the cable and satellite industry have seen increased expenses in programming, especially sports programming. These costs are the bulk of Comcast's expenses and this trend is expected to continue in the future.

Other Revenue Sources

Comcast also generates revenue from installations, commissions from third party electronic-retailing and providing businesses with Internet connectivity and networked business applications.

Content

Comcast has invested in national cable networks and regional programming enterprises in an effort to generate additional revenue and subscriber interest. National television networks include E! Entertainment Television, Style Network, The Golf Channel, Outdoor Life Network, and G4. Regional enterprises include Comcast Spectacor, Comcast SportsNet, Comcast SportsNet Mid-Atlantic, Comcast Sports Southeast, and CN8. Another regional enterprise is Comcast SportsNet Chicago, which is scheduled to launch in October 2004 (see Figure 4 for additional details). Comcast also owns non-controlling programming interest in TV One, The Discovery Health Channel, iN DEMAND (a pay-per-view and VOD service), Fox Sports New England, New England Cable News, and Pittsburg Cable News Channel.

Recent Developments

CMCSA to buy Tech TV: On March 24, 2004 CMCSA agreed to buy TechTV from Vulcan Programming for \$300 million. The deal, which will merge TechTV with Comcast's own G4 network, is a step in the right direction. The gaming industry is the fastest growing sector in the entertainment business with sales of approximately \$11.0 billion per year. This merger will more than double the reach of the G4 network to 44 million homes. However, the purchase is subject to regulatory approval and may take several months to close.

Programming is the largest expense for CMCSA.

CMCSA bid for Disney: In light of News Corp. taking a controlling stake in DirecTV, which significantly altered the landscape of the media and cable service industry, CMCSA proposed to purchase The Walt Disney Company in a tax free transaction on February 11, 2004. The bid timing was based on Disney shareholders lack of support for CEO and Chairmen Michael Eisner. Terms included issuing 0.78 shares of Class A common stock of CMCSA for each Disney share and the assumption of \$11.9 billion of Disney Debt, for a total transaction cost of \$66 billion. Initially this offer was based on the closing share price of CMCSA on February 10, 2004, which did include a premium. Disney directors rejected the offer, but the proposal remains outstanding and its value is subject to stock price fluctuation. Since the bid, CMCSA share price has dropped and Disney shares have increased virtually eliminating any premium so CMCSA will most likely have to raise its offer. Although many are skeptical about merging content with distribution, this merger makes sense because they could optimize mismanaged assets for future value and controlling both content and distribution technology could allow CMCSA to dictate the future of blending technology and content in innovative ways. Specifically this would provide CMCSA better control of programming costs, better leverage with advertisers, and better video offering versus satellite. Assuming a price is agreed to, completing this deal won't be easy as both firms will have to contend with regulators bent on ensuring vital competition within the industry. Also in light of industry consolidation this pending merger is positive. Yet execution risks may be a near term overhang while overpaying could have longer term effects.

Cable vs. Satellite in terms of entertainment seem to be a matter of preference as there is no clear advantage to either.

Industry Overview and Competitive Positioning

The broadcasting and cable TV landscape is highly competitive due to the numerous companies involved in video, high-speed Internet, phone, programming, and content services. Therefore factors such as differentiation, cost, packaging ability, market share and the ability to offer new and innovative services are important (see Figure 5 for SWOT analysis).

Video Service

CMCSA competes with other cable companies, direct broadcast satellite services (DBS), local television broadcast stations, and satellite master antenna television systems (SMATV) that service condominium developments, apartment complexes, and residential developments. Here the biggest threat is DBS services. In particular DirecTV and EchoStar who service approximately 20 million homes compared to Comcast's 21 million subscribers. Also, the News Corp. acquisition of DirecTV merges content with distribution creating synergies that significantly change the landscape of the media business. Comcast's management is aware of this and has placed an all stock bid on Disney which makes strategic sense. However in the short term there will be downward pressure on CMCSA stock while the offer is outstanding. In addition there is a risk of overpayment which could be detrimental. The following table lists the differences between cable and satellite services and it seems that which service to chose is a matter of preference because both have there merits.

	Cable	Satellite (DBS)
Popularity	More Popular.	Very Popular and has significantly impacted cable growth.
Equipment	Set-top box (digital).	Satellite and receivers.
Transmission and Reception Quality	Basic analog signal, but can upgrade to digital.	Digital, but reception can be subjected to interference with heavy rain, snow or trees.
Programming	Digital Cable can support up to 260 channels, option packages along with pay per view services. Cable TV can have more local and community channel options. Cable players are a bit behind in HDTV services.	Satellite TV has more channels than cable providers. It offers more international and sports programming. High Definition (HDTV) channels available like HBO and ShowTime.
Pricing	Comparable, but has a higher per channel cost.	Comparable, but has a lower per channel cost.
Parental Control	Yes (with digital cable)	Yes
Interactive Services	Digital Cable provides an electronic	Has some great features that are not available on Cable. For example, Personal Video

Disney bid makes strategic sence although execution risks linger .

	Program Guide. In general has less interactive features.	Recording (PVR) which allows you to pause and even rewind live broadcasts. Also has features like the Electronic Program Guide, Instant Weather, video on demand.
Reach	Limited	Not Limited
Internet	Yes	Yes

High-Speed Internet

CMCSA competes with other cable companies, local telephone companies, other internet service providers (ISPs), and long distance telephone companies. Here, the biggest threats are Verizon, SBC, America Online, Earthlink, and AT&T. The following table lists differences between digital subscriber line (DSL), cable, and satellite DSL. Here DSL and cable are certainly better services based on speed and pricing comparisons. However, DSL versus cable seems to be a matter of preference as they are very similar in all categories.

	Cable	DSL	Satellite DSL
Max Speed	Up to 1.5 Mbps	Up to 3 Mbps	Up to 1 Mbps
Average Speed	467 Kbps	708 kbps	400 Kbps
Home Networking	Yes	Yes	No
Service Area	Limited	Limited	Not Limited
Average Setup Cost	\$100	\$150	\$99-\$399
Average Monthly Cost	\$34.95 - \$59.95	\$39.95 - \$59.95	\$99.99

When comparing cable, DSL, and Satellite with regard to high-speed Internet access, cable and DSL are better choices than Satellite. However there is no clear advantage to either cable or DSL

Phone

CMCSA competes with traditional circuit-switched local service providers, cellular telephone service providers, competitive local exchange carriers (including established long distance companies) and VoIP service providers. The phone service segment is where Comcast faces its biggest challenge, which was reflected in its reduced revenue of 2.2% in 2003. Many telecommunications companies are expanding their offerings to include high-speed Internet with aggressive pricing. Local exchange carriers have substantial capital and other resources, longstanding customer relationships, extensive existing facilities and network rights-of-way. A few competitive local exchange carriers also have existing local networks and significant financial resources putting CMCSA in a difficult position to grow its business. In addition many telecoms are releasing VoIP service where Comcast has put their marketing on hold until they can deliver VoIP with guaranteed quality of service, unlike the VoIP services already available. However, they do see its potential and are very serious about launching the service. It's just not clear as to when the rollout will happen. The good news is that currently the phone segment only provides 4.3% of its total income, which means that any future negative impact will not significantly affect the bottom line.

Comcast has a competitive advantage based on the ability to bundle multiple services at the lowest price.

In general, CMCSA size and influence are unparalleled in the industry. It is a premier cable company that is double the size of its nearest competitor, reaches 40 million homes, and services 21 million customers. The fact that CMCSA was able to hold its programming costs, which is its largest expense, to below 3% growth for 2003 is testimony to its presence. The successful integration of AT&T broadband is also a plus. The company managed to increase the number of basic subscribers reversing AT&T's 3 year trend of losses, improved profitability by increasing operating margin and revenues, and accelerated the upgrade program surpassing their goals for the end of 2003. Strengthening their balance sheet by reducing debt by 22.7 % puts them in a great position to finance future endeavors. The greatest threat is competition in all segments of business. Comcast can and does compete on a level playing field for individual services, however their advantage is low cost packaging of cable and high-speed Internet. The reason is that the marginal cost for Comcast to add a service for an existing customer is minimal. For example, one can purchase Internet access through a cable system and receive cable TV broadcasting from Comcast for as little as \$60 per month with the convenience of one bill while comparable DSL line and DBS would cost a minimum of \$75 per month. Another threat is the fact that growth of basic cable subscribers is virtually non-existent posing a sign of weakness because video service is their greatest

source of revenue. On the other hand, CMCSA has been able to increase their monthly average revenue per video subscriber over the past several years. However, since the increase in cable costs have outpaced inflation, the FCC has threatened regulation (see risk section for further details). Never the less, Comcast can grow its business thorough offering new services such as digital cable, high-speed Internet, video on demand (VOD), high definition TV (HDTV), and voice over Internet protocol (Vo IP). In 2003, digital cable and high-speed Internet services showed an increase in revenue of 73%. Therefore focusing on new services, which is part of their business model, will continue to grow its business. Although CMCSA faces tough competition in all segments, its strong balance sheet, competent management, size, packaging ability, and innovative services will allow it to succeed in the future.

Financial Analysis

General Business Developments

Broadband Acquisition and Integration: On November 18, 2002 CMCSA acquired the AT&T broadband business which included 12.8 million subscribers and other cable-related investments. Key integration achievements include improved operating results, accelerated system rebuilds, and the reversal of basic subscriber losses.

TWE Restructuring: On March 31, 2003 CMCSA announced successful completion of the restructuring of the Time Warner Entertainment Company L.P., which was obtained in the AT&T broadband acquisition. This resulted in common-equivalent preferred stock of Time Warner Inc., a 21% stake in the business of Time Warner Inc., and \$2.1 billion in cash.

Sale of QVC: On September 17, 2003 CMCSA completed the sale of its 57% interest in QVC to Liberty Media Corp. for approximately \$7.7 billion.

Debt Reduction: During 2003 CMCSA reduced its debt outstanding by approximately \$7.9 billion primarily with proceeds from the sale of QVC and related Liberty Notes, the TWE restructuring, and other transactions.

Earnings

Revenue for years 2003 and 2002 increased \$10.2 billion and \$2.2 billion respectively. For 2003, 95% of Comcast's total revenue came from cable operations consisting of monthly subscriptions to video, high-speed Internet, and advertising, which showed an increase of 138% when compared to 2002, mainly due to the acquisition of AT&T Broadband on Nov 18, 2002. Revenue for the content business segment actually showed a slight reduction in growth when comparing 2002 to 2003, however content revenue grew at 26.5% and 15.4% respectively. Total expenses decreased by \$427 million or 3.7% in 2003 from 2002, mainly due to the effects of approximately \$425 million of acquisition and employee termination related costs recorded by AT&T broadband in 2002. Eliminating the effects of the acquisition, expenses were nearly level with 2002 results.

Since the AT&T acquisition significantly alters the capital structure, the following discussion of the cable segment revenues and expenses will focus on pro forma information so that year over year performance can be evaluated more effectively (see Figure 6 for further details). Historical data will also be provided for completeness (see Figure 7). Pro forma data enhances comparability of financial information between periods by adjusting the data as if the acquisitions (or dispositions) occurred at the beginning of the prior year, while Historical data reflects results of acquired businesses only after the acquisition dates. Note: "pro forma data is only adjusted for the timing of acquisitions and does not include adjustments for costs related to integration activities, cost savings or synergies that have or may be achieved by the combined businesses. In the opinion of management, this information is not indicative of what our results would have been had we operated Broadband since January 1, 2002, nor of our future results" (Comcast Corp. 10-K report page 28 dated March 12, 2004).

2003 ended in a revenue growth of 9.1% and operating income growth of 42.1% from cable operations before depreciation and amortization when compared to pro forma 2002. The increase in revenue can be

Strong Growth in high-speed Internet due to demand is expected to continue as well as video growth due to strong competitive positioning. This coupled with keeping programming expense growth to below 3% is a recipe for success.

attributed to growth of basic cable, digital cable, high-speed Internet subscribers, and rate increases. Operating income growth is largely due to significant operating trends and efficiencies achieved in integrating the AT&T broadband systems. This integration involved adjusting the organizational structure and refocusing priorities on the following: Selling of video and high-speed Internet services, and emphasizing profitability over subscriber growth in the phone segment; Accelerating the upgrade of broadband services; and Renegotiating programming contracts with the goal of reducing the growth of programming costs. Looking at the pro forma data in Figure 6 it is easy to see that a bright spot for CMCSA is the \$769 million increase in high-speed internet revenue when compared to 2002. The increase is primarily due to the addition of 1.7 million high-speed Internet subscribers as well as effects of increases in month average revenue per subscriber. Growth is expected to continue in this segment due to increased demand for the service. Video revenue which includes basic, extended basic, premium, pay-per-view, equipment, and digital cable showed an increase of \$636 million in 2003, based on increases in monthly average revenue per video subscriber. In addition, in 2003 CMCSA added approximately 140,000 basic subscribers and over 1 million digital. Here, revenue growth is expected to continue to increase due to higher demand for the more expensive digital cable. Franchise fees and advertising segments showed a revenue increase in the neighborhood of 7% and values not nearly as significant as video or high-speed Internet. Revenue for the phone segment showed a slight decrease of \$17 million when compared to 2002, which is attributed to a loss of 171,000 subscribers due to the focus on profitability rather than subscriber growth. The "Other" segment, which includes installations, guides, commissions from electronic retailing, and revenue from regional sports networks showed a decrease of \$48 million.

Programming costs continue to be the largest operating expense which includes fees paid to license programming from cable and broadcast networks that CMCSA distributes packages and sells to our video subscribers. These expenses are impacted by changes in programming rates, the number of subscribers and programming channels. The cost of programming increased by 2.3% in 2003 and this trend is expected to continue in the future due to increased cost to produce and purchase programming and additional programming channels provided to subscribers. Selling and general administrative costs, which are included in the "Other" segment, decreased from 2002 to 2003 primarily due to the effects of approximately \$425 million of acquisition and employee termination related costs recorded by AT&T broadband in 2002. Additionally customer service expenses were reduced because there was no longer a reason to outsource broadband customer service. CMCSA also reduced overhead and administrative expenses through reductions in head count.

Increasing average monthly revenue per subscriber and decreasing capital expenditures are positive.

Cash Flow

Cash flow is not a problem, as of December 31, 2003 cash and cash equivalents for Comcast equaled \$1.55 billion all of which is unrestricted as compared to \$0.5 billion at the end of 2002 and is expected to increase in 2004. A majority of cash is generated by 21.5, 5.3, and 1.3 billion subscribers of video, high-speed Internet, and phone services respectively. The average monthly revenue per subscribers is \$47.15, \$42.44, and \$48.9 resulting in an increase of 5.9%, 1.5% and a decrease of 10% respectively. Net cash from continuing operations was approximately \$2.9 billion in 2003 which was a slight increase from \$2.4 billion in 2002. This is principally attributed to operating income before depreciation and amortization the effects of interest and income tax payments, and changes in operating assets and liabilities as a result of the timing of receipts and disbursements. Cash used for financing totaled \$7.0 billion in 2003 and \$1 billion in 2002. This increase is primarily from the AT&T broadband acquisition. \$5.2 billion in cash was generated from investment activities in 2003 compared to \$1.1 billion in 2002. A large part of the 2003 investment income is attributed to proceeds from the sales, settlements and restructuring of investments. In addition to cash, CMCSA also has investments in the following that are considered to be another source of liquidity. Comcast owns \$1.5 billion in Time Warner Inc. common equivalent preferred stock, \$1.4 billion in Liberty common stock, 21% interest in Time Warner Cable Inc., and interests in certain cable television partnerships. Yet another source of liquidity for Comcast is \$5.876 billion available under lines of credit as of December 31, 2003. On January 8, 2004 CMCSA refinanced three existing revolving credit facilities with a new \$4.5 billion, five-year revolving bank credit facility due January 2009, reducing the amount available under lines of credit to \$4.381 billion.

Reduction in assets and reduction in liabilities resulted in an increase of stockholder equity by 8.9% in 2003.

Capital expenditure is and will continue to be the most significant investment activity for CMCSA. However, 2004 expenditures are expected to decrease 18.2% based on completion of the cable system upgrade. This year it is estimated that approximately \$3.4 billion will be spent on upgrading certain cable systems, deploying cable modems, digital converters, and new service offerings, and recurring capital projects (see data in Figure 8 for estimates). Capital will also be used to fund stock repurchases in 2004 subject to market conditions. In December of 2003 the board of directors authorized repurchase of \$1 billion of outstanding common equity securities. Contractual obligations for the next 5 plus years, which primarily consist of debt obligations, totals \$41.61 billion (see Figure 9 for further information).

Balance Sheet and Financing

During 2003, CMCSA strengthened its balance sheet and increased liquidity through the repayment and refinancing of debt, and through the sales or restructurings of certain investments. Debt including capital lease obligations was \$26.996 billion at the end of 2003 versus \$34.909 billion at the end of 2002. This 22.7% reduction in debt was due to net debt repayment and non-cash refinancing (see Figure 10 for further information). The bulk of capital used was raised by selling \$4.0 billion of public debt, and selling QVC and Liberty Notes received in the sale of QVC for \$5.35 billion. In an effort to simplify capital structure and strengthen its credit rating, CMCSA and a number of wholly owned subsidiaries have adopted a Cross-Guarantee in which they have unconditionally guaranteed each other's debt securities and indebtedness for borrowed money, including amounts outstanding under the new credit facilities. As of December 31, 2003, \$20.866 billion of debt was included in the cross-guarantee structure. By the end of 2003, total assets were reduced to \$109.159 billion compared to \$113.128 billion by the end of 2002. Total liabilities were also reduced in 2003. Liabilities for 2002 totaled \$74.776 billion and 2003 totaled \$67.497 billion. The reduction in assets coupled with the reduction in liabilities resulted in an 8.9% increase in stockholder equity for 2003 in comparison with 2002 (see Figure 13 for further details).

Investment Risks

Short term dilution and possible medium term issues if CMCSA overpays for Disney: The current terms call for an exchange ratio of 0.78 along with absorption of \$11.9 billion in Disney debt. Since the initial offering, CMCSA share price has declined while Disney stock has increased essentially eliminating any premium. Since Comcast is serious about acquiring Disney they will have to raise their offering if they want to solidify a deal. In fact, given the current levels, the exchange ratio would have to be raised to 0.90 in order to keep the initial offer of \$26.50 per share. Although management is adamant about being disciplined and patient in their offering, there is still a risk that the premium they offer may exceed the synergies created from a merged company. It is clear that the synergies created from "vertical" merger in terms of head count and equipment will not be significant due to the fact that there is minimal overlap between the distribution and content business. The main advantage is a savings in programming expenditures, which is the largest expense for distribution companies. For Comcast, Disney's ESPN is the largest expenditure costing an estimated \$391 million per year. Being conservative, we assume this is the only synergy and model the acquisition with a 1.0 exchange ratio and CMCSA stock at \$30 resulted in an approximate 12% dilution in EBITDA/share for year one and near break even for year two (2006). In reality CMCSA may have to increase their bid to a ratio greater than 1.0, in that scenario at a price of \$30 (exchange of 1.1) the dilution would be a hefty 16% and 3% for year 1 and 2 respectively. More aggressive synergies would support a more aggressive bid, but management will have a hard time justifying this.

FCC promoting competition: A major objective of Congress and the FCC is to increase competition in all communications services. Although we feel that Comcast has a competitive advantage in the current marketplace, we expect advances in communication technology, as well as changes in the marketplace and legislation to occur in the future. Over the past ten years, Congress removed barriers to local telephone companies offering video services in their local service areas, and the FCC has assigned spectrum licenses for MVDDS, a new wireless service for providing multichannel video programming. Comcast's cable business could be affected by any new competitors that enter the video or high-speed Internet

businesses as a result of these efforts by Congress or the FCC. In particular, they could be disadvantaged if they remain subject to legal constraints that do not apply equally to new competitors.

Currently pending proceedings: There are currently numerous pending proceedings at the FCC, the courts, and at federal and state legislatures most of which we believe will not have a material effect on CMCSA business. However, the most important of these proceedings is the FCC threat of à la carte programming. Over the past 7 years, cable rates have increased 53% since deregulation in 1996 while inflation has only risen 19%. This statistic has consumers and the US Senate Commerce Committee raising questions such as "Why do we have to pay for channels that we don't watch?" In light of this, the FCC has threatened regulation if cable companies do not come up with à la carte programming although a time frame was not specified. This could cause major problems just from an accounts receivable perspective. In addition, monthly average revenue per subscriber may decrease even though per channel revenue may increase. When channels are packaged, each channel has a better chance of selling advertising time. With secure advertising revenue, the channels do not need to charge the cable companies as much for their programming. Conversely, if channels have to fight for viewership individually, less popular channels with fewer viewers will have to sell themselves more dearly to the cable companies, which will pass the costs on to consumers.

Figure 3: Cable systems information as of December 31 (homes and subscribers in millions):

Homes and subscribers in millions

Source: 10-K Company Document

	2003	2002 (1)		Historical Systems	2001(2)	2000(2)	1999(2)
		Total	Broadband Systems				
Cable							
Homes Passed (3)	39.8	39.2	25.0	14.2	13.9	12.7	9.5
Subscribers (4)	21.5	21.3	12.8	8.5	8.5	7.6	5.7
Penetration	53.9%	54.4%	51.1 %	60.2%	60.8%	60.0%	60.1%
Digital Cable							
"Digital Ready" Subscribers (5)	21.5	21.3	12.8	8.5	8.4	7.3	4.6
Subscribers (6)	7.7	6.6	4.4	2.2	1.7	1.2	0.5
Penetration	35.7%	31.1%	34.3 %	26.3%	20.8%	16.6%	9.8%
High-Speed Internet							
"Available" Homes (7)	34.7	30.1	17.5	12.6	10.4	6.4	3.3
Subscribers	5.3	3.6	2.1	1.5	0.9	0.4	0.1
Penetration	15.2%	12.0%	12.0 %	12.1%	9.1%	6.3%	4.4%
Phone (8)							
"Available" Homes (7)	9.4	8.7	8.4	0.3			
Subscribers	1.3	1.4	1.4				
Penetration	13.5%	16.5%	16.6 %				

- (1) On November 18, 2002, we consummated the Broadband acquisition. The Broadband acquisition substantially increased the size of our cable operations and direct comparisons of our cable information for periods prior to November 18, 2002 to subsequent periods are not meaningful. The information as of December 31, 2002 excludes the operating statistics for Broadband cable systems held for sale.
- (2) In April 1999, we acquired a controlling interest in Jones Intercable, Inc. In January 2000, we acquired Lenfest Communications, Inc. and began consolidating the results of Comcast Cablevision of Garden State, L.P. In August 2000, we acquired Prime Communications LLC. On December 31, 2000 and January 1, 2001, we completed our cable systems exchanges with AT&T and Adelphia Communications, respectively. In April and June 2001, we acquired cable systems serving an aggregate of approximately 697,000 subscribers from AT&T. The subscriber information as of December 31, 2000 excludes the effects of our exchange with AT&T.
- (3) A home is "passed" if we can connect it to our distribution system without further extending the transmission lines. As described in Note 4 below, in the case of certain multiple dwelling units, or MDUs, homes "passed" are counted on an adjusted basis.

"Homes passed" is an estimate based on the best available information.

- (4) Generally, a dwelling or commercial unit with one or more television sets connected to a system counts as one cable subscriber. In the case of certain MDUs, we count cable subscribers on an FCC equivalent basis.
- (5) A subscriber is "digital ready" if the subscriber is in a market where we have launched our digital cable service.
- (6) A dwelling with one or more digital converter boxes counts as one digital cable subscriber. On average, as of December 31, 2003, each digital cable subscriber had 1.5 digital set-top boxes.
- (7) A home passed is "available" if we can connect it to our distribution system without further upgrading the transmission lines and if we offer the service in that area.
- (8) Prior to the Broadband acquisition, the number of phone "available" homes and subscribers was not material.

Figure 4: Content

Source: 10-K Company Document

Investment	Economic Ownership Percentage	Approximate Subscribers	Description
E! Entertainment Television	50.1 %	74.2	Entertainment-related news and original programming
Style Network	50.1	29.6	Lifestyle-related programming
The Golf Channel	99.9	50.1	Golf-related programming
Outdoor Life Network	100.0	50.6	Outdoor sports and leisure programming
G4	93.6	11.7	Programming focused on video and computer games
Comcast Spectacor	66.3	N/A	Live sporting events, concerts and other events
Comcast SportsNet	78.3	2.9	Regional sports programming and events
Comcast SportsNet Mid-Atlantic	100.0	4.5	Regional sports programming and events
Comcast SportsNet Chicago	30.0	(a)	Regional sports programming and events
Cable Sports Southeast	62.2	3.9	Regional sports programming and events
CN8-The Comcast Network	100.0	6.2	Regional and local programming

(a) Comcast SportsNet Chicago is scheduled to launch in October 2004.

Figure 5: SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> · Size and influence are unparalleled in the Industry · Competitive in all segments with lowest packaged pricing · AT&T Broadband integration success · Programming (their largest expense) was held to less than a 3% increase in 2003 · Strong balance sheet 	<p>Weaknesses</p> <ul style="list-style-type: none"> · Share price will remain under pressure while Disney bid is still outstanding · Virtually no growth in basic cable subscribers · Loss of subscribers in the phone segment for 2003 · May be lagging in VOIP rollout
<p>Opportunities</p> <ul style="list-style-type: none"> · New Services such as digital cable, high-speed Internet, VOD, HDTV, and VOIP. 	<p>Threats</p> <ul style="list-style-type: none"> · Competition with Satellite for subscribers · Competition with Bells for high-speed Internet · Regulation threats from FCC to offer a la carte channels

Figure 6: Pro Forma Data on Continuing Operations

\$ in millions

Source: 10-K Company Document

	2003	2002	Increase (Decrease)	% Increase (Decrease)
Video	\$12,096	\$11,460	\$636	5.5%
High-speed Internet	2,255	1,486	769	51.7
Phone	801	818	(17)	(2.2)
Advertising sales	1,112	1,036	76	7.4
Other	619	667	(48)	(7.2)
Franchise fees	608	570	38	6.8
Revenues	17,491	16,037	1,454	9.1
Programming expenses	3,909	3,822	87	2.3
Other operating, selling, general and administrative expenses	7,232	7,746	(514)	(6.6)
Operating income before depreciation and amortization (a)	\$6,350	\$4,469	\$1,881	42.1%
Video subscribers	21,468.0	21,327.4	140.6	0.7%
High-speed Internet subscribers	5,283.9	3,620.4	1,663.5	45.9%
Phone subscribers	1,266.9	1,438.4	(171.5)	(11.9%)
Monthly average revenue per video subscriber	\$47.15	\$44.54	\$2.61	5.9%
Monthly average revenue per high-speed Internet subscriber	\$42.44	\$41.81	\$0.63	1.5%
Monthly average revenue per phone subscriber	\$48.90	\$54.35	(\$5.45)	(10.0%)

(a) Operating income before depreciation and amortization is defined as operating income before depreciation and amortization, impairment charges, if any, related to fixed and intangible assets and gains or losses from the sale of assets, if any. As such, it eliminates the significant level of non-cash depreciation and amortization expense that results from the capital intensive nature of our businesses and intangible assets recognized in business combinations, and is unaffected by our capital structure or investment activities. Our management and Board of Directors use this measure in evaluating our consolidated operating performance and the operating performance of all of our operating segments. This metric is used to allocate resources and capital to our operating segments and is a significant component of our annual incentive compensation programs. We believe that this measure is also useful to investors as it is one of the bases for comparing our operating performance with other companies in our industries, although our measure may not be directly comparable to similar measures used by other companies. Because we use operating

income before depreciation and amortization as the measure of our segment profit or loss, we reconcile it to operating income, the most directly comparable financial measure calculated and presented in accordance with Generally Accepted Accounting Principles (GAAP), in the business segment footnote to our financial statements. This measure should not be considered as a substitute for operating income (loss), net income (loss), net cash provided by operating activities or other measures of performance or liquidity reported in accordance with GAAP.

Figure 7: Historical Data on Continuing Operations

\$ in millions

Source: 10-K Company Document

2003 to 2002 Historical Comparisons

	2003	2002	Increase	% Increase
--	------	------	----------	---------------

Video	\$12,096	\$5,516	\$6,580	119.3%
High-speed Internet	2,255	715	1,540	215.4
Phone	801	127	674	530.7
Advertising sales	1,112	474	638	134.6
Other	620	275	345	125.5
Franchise fees	608	243	365	150.2
	<u>17,492</u>	<u>7,350</u>	<u>10,142</u>	<u>138.0</u>
Revenues				
Operating, selling, general and administrative expenses	<u>11,142</u>	<u>4,552</u>	<u>6,590</u>	<u>144.8</u>
Operating income before depreciation and amortization (a)	<u>\$6,350</u>	<u>\$2,798</u>	<u>\$3,552</u>	<u>126.9%</u>

Figure 8: Capital Expenditure

\$ in millions

Source: 10-K Company Document

	2003	2004
Upgrading of certain cable systems	\$1,414	\$760
Deployment of cable modems, digital converters, and new service offerings	1,923	1,880
Recurring capital projects	760	710
Total capital expenditures	<u>\$4,097</u>	<u>\$3,350</u>

Figure 9: Contractual Obligations

\$ in millions

Source: 10-K Company Document

	Payments Due by Period				
	Total	Year 1	Years 2 - 3	Years 4 - 5	More than 5 years
	(dollars in millions)				
Debt obligations, excluding Exchangeable Notes	\$22,451	\$684	\$3,500	\$2,389	\$15,878
Exchangeable Notes	4,318	2,427	1,839	52	
Capital lease obligations	227	50	89	78	10
Operating lease obligations	979	200	281	200	298
Purchase obligations (1)	9,177	2,138	2,293	1,816	2,930
Other long-term liabilities reflected on the balance sheet					
Acquisition related obligations (2)	897	372	195	102	228

Other long-term obligations (3)	3,642	247	279	121	2,995
Total	<u>\$41,691</u>	<u>\$6,118</u>	<u>\$8,476</u>	<u>\$4,758</u>	<u>\$22,339</u>

- (1) Purchase obligations consist of agreements to purchase goods and services that are enforceable and legally binding on us and that specify all significant terms including fixed or minimum quantities to be purchased, price provisions and timing of the transaction. Our purchase obligations include payments under the employment agreements that we, through Comcast Spectacor, have with both players and coaches of our professional sports teams that are guaranteed regardless of employee injury or termination. Certain of these agreements may be covered by disability insurance if certain conditions are met. Also included are payments under license agreements that our programming networks have entered into for programs and sporting events that will be available for telecast subsequent to December 31, 2003. Also included are the minimum guaranteed payments under programming contracts that our cable segment enters into for the purchase of programming from cable network providers. We have also included commitments to purchase cable related equipment. We did not include contracts with immaterial future commitments.
- (2) Acquisition related obligations consist primarily of costs related to terminating employees, costs relating to exiting contractual obligations, and other assumed contractual obligations of the acquired entity.
- (3) Other long-term obligations consist principally of our prepaid forward transactions on equity securities we hold, subsidiary preferred shares, deferred compensation obligations, pension, post-retirement and post-employment benefit obligations, and program rights payable under license agreements.

Figure 10: Investing and Financing Activities

Source: 10-K Company Document

<u>Date</u>	<u>Amount</u>	<u>Source</u>
January 2003	\$4.0 billion	Sale of public debt
March 2003		
May 2003		
March 2003	\$53 billion	Transfer of cable systems to Bresnan Broadband Holdings, LLC and Bresnan Communications, LLC
March 2003	\$2.1 billion	Closing of the TWE restructuring
June 2003	\$73 billion	Sale of interest in CC VIII, LLC, a cable joint venture with Charter Communications, Inc.
September 2003	\$5.35 billion	Sale of QVC and sale of Liberty Notes received in connection with the sale of QVC
December 2003		
December 2003	\$89 billion	Monetization of a portion of Liberty shares received in connection with the sale of QVC

Figure 11: Consolidated Statement of Operations

\$ in millions

Source: 10-K Company Document

	Year Ended December 31,		
	<u>2003</u>	<u>2002</u>	<u>2001</u>
REVENUES	\$18,348	\$8,102	\$5,937
COSTS AND EXPENSES			
Operating (excluding depreciation)	7,041	3,012	2,446
Selling, general and administrative	4,915	2,254	1,543
Depreciation	3,166	1,694	1,130
Amortization	1,272	221	2,143
	<u>16,394</u>	<u>7,181</u>	<u>7,262</u>

OPERATING INCOME (LOSS)	1,954	921	(1,325)
OTHER INCOME (EXPENSE)			
Interest expense	(2,018)	(870)	(708)
Investment income (loss), net	(84)	(543)	986
Equity in net losses of affiliates	(60)	(63)	(16)
Other income	71	1	1,290
	<u>(2,091)</u>	<u>(1,475)</u>	<u>1,552</u>
INCOME (LOSS) FROM CONTINUING OPERATIONS BEFORE INCOME TAXES, MINORITY INTEREST AND CUMULATIVE EFFECT OF ACCOUNTING CHANGE	(137)	(554)	227
INCOME TAX BENEFIT (EXPENSE)	<u>16</u>	<u>128</u>	<u>(216)</u>
INCOME (LOSS) FROM CONTINUING OPERATIONS BEFORE MINORITY INTEREST AND CUMULATIVE EFFECT OF ACCOUNTING CHANGE	(121)	(426)	11
MINORITY INTEREST	<u>(97)</u>	<u>(43)</u>	<u>(7)</u>
INCOME (LOSS) FROM CONTINUING OPERATIONS BEFORE CUMULATIVE EFFECT OF ACCOUNTING CHANGE	(218)	(469)	4
INCOME FROM DISCONTINUED OPERATIONS, net of tax	168	195	220
GAIN ON DISCONTINUED OPERATIONS, net of tax	<u>3,290</u>		
INCOME (LOSS) BEFORE CUMULATIVE EFFECT OF ACCOUNTING CHANGE	3,240	(274)	224
CUMULATIVE EFFECT OF ACCOUNTING CHANGE			<u>385</u>
NET INCOME (LOSS)	<u>\$3,240</u>	<u>(\$274)</u>	<u>\$609</u>
BASIC EARNINGS (LOSS) FOR COMMON STOCKHOLDERS PER COMMON SHARE			
Income (loss) from continuing operations before cumulative effect of accounting change	(\$0.10)	(\$0.42)	\$0.00
Income from discontinued operations	0.08	0.17	0.24
Gain on discontinued operations	1.46		
Cumulative effect of accounting change			<u>0.40</u>
Net income (loss)	<u>\$1.44</u>	<u>(\$0.25)</u>	<u>\$0.64</u>
DILUTED EARNINGS (LOSS) FOR COMMON STOCKHOLDERS PER COMMON SHARE			
Income (loss) from continuing operations before cumulative effect of accounting change	(\$0.10)	(\$0.42)	\$0.00
Income from discontinued operations	0.08	0.17	0.23

Gain on discontinued operations	1.46		
Cumulative effect of accounting change			0.40
Net income (loss)	\$1.44	(\$0.25)	\$0.63

Figure 12: Consolidated Statement of Cash Flows

\$ in millions

Source: 10-K Company Document

	Year Ended December 31,		
	2003	2002	2001
OPERATING ACTIVITIES			
Net income (loss)	\$3,240	(\$274)	\$609
Income from discontinued operations	(168)	(195)	(220)
Gain on discontinued operations	(3,290)		
Income (loss) from continuing operations	(218)	(469)	389
Adjustments to reconcile net income (loss) from continuing operations to net cash provided by operating activities from continuing operations:			
Depreciation	3,166	1,694	1,130
Amortization	1,272	221	2,143
Non-cash interest (income) expense, net	(113)	10	43
Equity in net losses of affiliates	60	63	16
Losses (gains) on investments and other (income) expense, net	145	604	(2,229)
Minority interest	45	43	7
Cumulative effect of accounting change			(385)
Deferred income taxes	820	(95)	(253)
Proceeds from sales of trading securities	85		367
Current tax associated with sale of discontinued operation	(2,028)		
Change in operating assets and liabilities, net of effects of acquisitions and divestitures			
Change in accounts receivable, net	(45)	80	(15)
Change in accounts payable	(45)	51	10
Change in other operating assets and liabilities	(290)	219	(54)
Net cash provided by operating activities from continuing Operations	2,854	2,421	1,169
FINANCING ACTIVITIES			
Proceeds from borrowings	9,398	8,759	5,687
Retirements and repayments of debt	(16,465)	(9,508)	(4,013)
Proceeds from settlement of interest rate exchange agreements		57	
Issuances of common stock and sales of put options on common stock	67	19	27
Repurchases of common stock	(14)		(27)
Deferred financing costs	(34)	(332)	(23)
Net cash (used in) provided by financing activities from			

continuing operations	(7,048)	(1,005)	1,651
INVESTING ACTIVITIES			
Acquisitions, net of cash acquired	(152)	(251)	(1,329)
Proceeds from sales of (purchases of) short-term investments, net	(32)	(21)	(6)
Proceeds from sales of discontinued operations and assets held for sale	1,875		
Capital contributions to and purchases of investments	(202)	(67)	(277)
Proceeds from sales, settlements and restructuring of investments	7,971	1,263	806
Capital expenditures	(4,161)	(1,852)	(2,039)
Additions to intangible and other noncurrent assets	(155)	(197)	(305)
Proceeds from settlement of contract of acquired company	95		
Net cash provided by (used in) investing activities from continuing operations	5,239	(1,125)	(3,150)
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	1,045	291	(330)
CASH AND CASH EQUIVALENTS, beginning of year	505	214	544
CASH AND CASH EQUIVALENTS, end of year	\$1,550	\$505	\$214

Figure 13: Consolidated Balance Sheet

\$ in millions

Source: 10-K Company Document

	December 31,	
	2003	2002
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$1,550	\$505
Investments	2,493	3,258
Accounts receivable, less allowance for doubtful accounts of \$146 and \$172	907	862
Other current assets	453	380
Current assets of discontinued operations		1,481
Current assets held for sale		613
Total current assets	5,403	7,099
INVESTMENTS	14,818	15,174
PROPERTY AND EQUIPMENT, net of accumulated depreciation of \$6,563 and \$3,855 .	18,473	18,381
FRANCHISE RIGHTS	51,050	48,222
GOODWILL	14,841	16,562
OTHER INTANGIBLE ASSETS, net of accumulated amortization of \$2,182 and \$735	3,859	5,429

OTHER NONCURRENT ASSETS, net	715	666
NONCURRENT ASSETS OF DISCONTINUED OPERATIONS		1,595
	<u>\$109,159</u>	<u>\$113,128</u>
<u>LIABILITIES AND STOCKHOLDERS' EQUITY</u>		
<u>CURRENT LIABILITIES</u>		
Accounts payable	\$1,251	\$1,296
Accrued expenses and other current liabilities	4,563	5,236
Deferred income taxes	679	1,105
Short-term debt		3,750
Current portion of long-term debt	3,161	3,203
Current liabilities of discontinued operations		816
Total current liabilities	<u>9,654</u>	<u>15,406</u>
LONG-TERM DEBT, less current portion	<u>23,835</u>	<u>27,956</u>
DEFERRED INCOME TAXES	<u>25,900</u>	<u>23,104</u>
OTHER NONCURRENT LIABILITIES	<u>7,816</u>	<u>7,161</u>
MINORITY INTEREST	<u>292</u>	<u>249</u>
NON-CURRENT LIABILITIES AND MINORITY INTEREST OF DISCONTINUED OPERATIONS		<u>923</u>
COMMITMENTS AND CONTINGENCIES (NOTE 13)		
<u>STOCKHOLDERS' EQUITY</u>		
Preferred stock - authorized 20,000,000 shares; issued, zero		
Class A common stock, \$0.01 par value - authorized, 7,500,000,000 shares; issued, 1,601,161,057 and 1,599,014,148; outstanding, 1,357,520,557 and 1,355,373,648	16	16
Class A special common stock, \$0.01 par value - authorized, 7,500,000,000 shares; issued 931,732,876 and 930,633,433; outstanding, 884,443,033 and 883,343,590	9	9
Class B common stock, \$0.01 par value - authorized, 75,000,000 shares; issued, 9,444,375		
Additional capital	44,742	44,620
Retained earnings	4,552	1,340
Treasury stock, 243,640,500 Class A common shares and 47,289,843 Class A special common shares	(7,517)	(7,517)
Accumulated other comprehensive loss	(140)	(139)

Total stockholders' equity	<u>41,662</u>	<u>38,329</u>
	<u>\$109,159</u>	<u>\$113,128</u>

Disclosures:

Ownership and material conflicts of interest:

The author or a member of their household, of this report does not hold a financial interest in the securities of this company. The author or a member of their household, of this report does not know of the existence of any conflicts of interest that might bias the content or publication of this report.

Receipt of compensation:

Compensation of the author(s) of this report is not based on investment banking revenue.

Position as an officer or director:

The author(s), or a member of their household, does not serve as an officer, director or advisory board member of the subject company.

Market making:

The author(s) does not act as a market maker in the subject company's securities.

Ratings key:

Banks rate companies as a BUY, HOLD or SELL. A BUY rating is given when the security is expected to deliver absolute returns of 15% or greater over the next twelve month period, and recommends that investors take a position above the security's weight in the S&P 500, or any other relevant index. A SELL rating is given when the security is expected to deliver negative returns over the next twelve months, while a HOLD rating implies returns between and 0% and 15% over the next twelve months.

Disclaimer:

The information set forth herein has been obtained or derived from sources generally available to the public and believed by the author(s) to be reliable, but the author(s) does not make any representation or warranty, express or implied, as to its accuracy or completeness. The information is not intended to be used as the basis of any investment decisions by any person or entity. This information does not constitute investment advice, nor is it an offer or a solicitation of an offer to buy or sell any security. This report should not be considered to be a recommendation by any individual affiliated with NYSSA or the NYSSA Investment Research Challenge with regard to this company's stock.