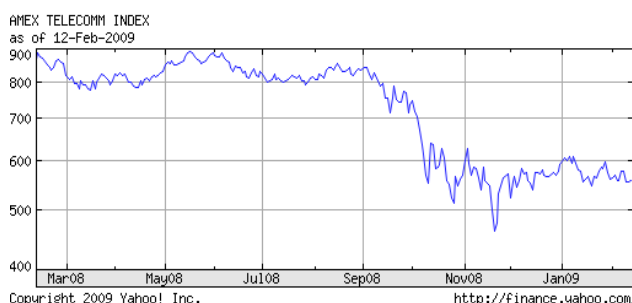




Telecommunications (Domestic Telecommunications)

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Key Index Statistics (^XTC)

Price	555.98
52-Week Range	443.83-894.02
Market Capitalization (B)	n/a
1-Yr % Change	-35.8%

Major Players by Market Cap (B)

AT&T, Inc	145.3
Verizon Communications, Inc.	87.0
BCE, Inc.	16.4
Qwest Communications International, Inc.	5.5
Windstream Corporation	3.9
CenturyTel, Inc.	2.8
Frontier Communications Corp.	2.7
Equinix, Inc.	2.3
TW Telecom, Inc.	1.2
Iowa Telecommunications	0.39

INVESTMENT THESIS

- Telecommunications services are seen by many consumers as a core need for the business or home. Despite being an industry characterized by maturity versus growth prospects, the domestic telecom industry makes for an attractive play as its players have relatively steady cash flow streams and strong dividend yields.
- The wireless penetration rate in the US has grown from just 11% in 1995 to approximately 84% as of June of 2008¹. After reaching this level, the penetration rate can only slow. However, we expect that wireless revenues will continue to show increases in average revenue per user (ARPU) and growing revenues, largely because of the opportunities for data services revenues.
- Industry players offering only traditional wireline services have seen an erosion of revenues due to wireless substitution. We expect access lines to decrease moving forward into the future, as consumers increasingly accept wireless voice services as a substitute for home access lines.
- An ever-increasing growth in consumer needs for high-speed internet has led to a strong demand for broadband services. Broadband currently represents the most promising revenue growth opportunity for traditional wireline companies, as both residential and enterprise customers continue to increase their use of online services for both personal and business needs.
- The domestic telecommunications industry is currently seeing competition for customers from cable providers. Cable providers have emerged as a threat to traditional telecom companies by providing voice and internet services to customers, capitalizing, in many cases, on name brand recognition and large established service area footprints.

EXECUTIVE SUMMARY

The global economic recession has had a sweeping effect on all sectors of the market, with the telecommunications industry being no different. As 2008 year-end earnings results have begun to come in, it is apparent that the economic weakness has been pressuring the industry, particularly in the form of decreasing wireline revenues. We expect the industry to continue to see pressure as a result of macroeconomic factors as overall economic conditions are not expected to improve until at least the second half of 2009.

Despite the grim economic situation, we expect the telecom sector to perform well in comparison to other industries within the market. Traditionally, telecommunications services have been a core product for consumers and telecommunications companies (telecos) have provided relatively steady cash flows and strong dividend yields.

Dividend Yields of Selected Industry Participants

	Dividend (Annual)	Yield
Iowa Telecom	\$ 1.62	13.50%
Frontier	\$ 1.00	13.00%
Windstream	\$ 1.00	11.80%
CenturyTel	\$ 2.80	10.10%
Qwest	\$ 0.32	8.40%
BCE	\$ 1.54	7.40%
AT&T	\$ 1.64	6.30%
Verizon	\$ 1.84	5.07%
Shenandoah Telecom	\$ 0.30	1.20%

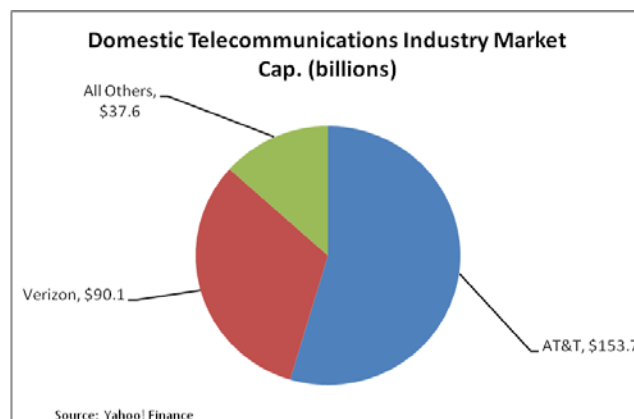
Source: Yahoo! Finance

In addition to economic conditions, consumer substitutions of wireless voice services for wireline voice services and the rise of cable providers offering voice services have pressured wireline revenues. A key to industry growth will be increasing broadband revenues along with determining how to move forward as wireless services become increasingly prevalent within the telecom industry.

INDUSTRY DESCRIPTION

AT&T held a monopoly in the US telecommunications industry for many years, however, the industry has undergone significant change since the reduction of the

original AT&T in the early 1980's. After the breakup of the AT&T monopoly, deregulation and competition emerged as primary forces within the industry. These forces, combined with numerous technological advances have transformed the telecommunications industry into a diverse industry with a number of key players which operate under a wide variety of business models. Despite the diversification and increase in competition within the industry, in terms of market capitalization, the domestic telecommunications industry could still be classified as two different groups: AT&T/Verizon, and everyone else.

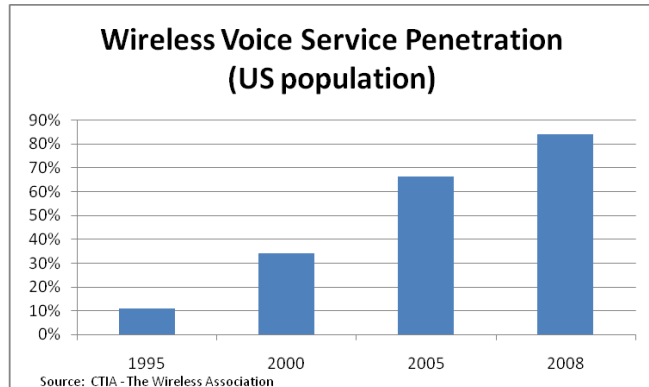


Despite the presence of these two giants, which make up a combined 86.6% of the industry market capitalization³, there is a great deal of the competition within the industry. Many industry participants offer both wireline and wireless services, in addition to include video and high-speed internet services that are becoming increasingly popular as well. Despite the fact that wireline telecom services have long been considered a core customer need, recent figures indicate that there has been significant downward pressure on traditional wireline voice services as a result of both the growing popularity of cellular telephones, and the negative economic climate. As the economy continues to slow, residential customers will be apt to eliminate home access lines in favor of using their large amounts of wireless minutes (as of January 2009, Verizon Wireless offers 900 minutes per month for \$59.99)⁴ as a substitute. Additionally, if the current economic conditions continue to persist, it is expected that enterprise customers may become fewer and will have less of a need for wireline voice services as employers lay off their employees. We expect this threat an adverse growth environment to continue into the foreseeable future in the wireline segment.

The wireless voice services sector in the has shown significant domestic growth over the course of the past 15 years, with wireless penetration rates rising to approximately 84% of the US population in June of



2008, compared with a penetration rate of approximately 11% in June of 1995¹.



In addition to the traditional offering of voice services, domestic telcos have been competing directly with cable companies to provide video and high-speed internet services to customers. The advent of product bundling, where one service provider supplies voice, video and internet services to a consumer, has greatly increased the threat of traditional cable providers. By offering bundled packages, cable providers are able to capture potential voice and broadband internet customers from telcos.

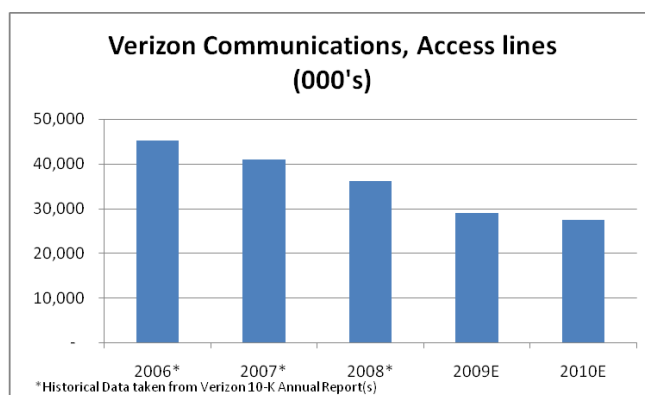
The telecommunications industry is stringently regulated, with the Federal Communications Commission (FCC) holding the primary responsibility of industry regulator at the federal level. Although not a legislative body, the FCC creates and defines regulations and is responsible for implementing laws that are enacted by the legislative and executive branches of the federal government. In this decade alone, the FCC has significantly shaped the industry landscape with rulings on issues such as local number portability, 911 service availability, spectrum auction participation and universal service funding contributions⁵.

At the federal level, telecommunications industry is also regulated by the US Department of Justice (DOJ) through the DOJ's antitrust division, which is responsible for protecting the public by enforcing rules against antitrust violations and anticompetitive practices. In addition to federal regulation, telcos also face regulation at the state level from public utility commissions, which administer laws that are passed by the legislatures of individual states.

RECENT DEVELOPMENTS/INDUSTRY TRENDS

Wireline Pressure

Traditional domestic wireline revenues have been receiving downward pressure from a number of sources. In 4Q of 2008, AT&T and Verizon, the two largest industry players, reported wireline revenue declines of 3.3%⁶ and 2.7%⁷, respectively, from the same time period a year earlier. Since 2008, Verizon Communications, the second largest domestic telecommunications firm has seen wireline access lines decline by approximately 20%, or nearly 9 million lines⁸. This is a trend that we expect to continue moving forward.



The pressure on the wireline portion of the industry is being applied by a slowing economy and increasing competition from wireless services and cable providers, who have continued to become a strengthening force in the offering of voice services.

Wireline services have seen pressures in both the residential and commercial sectors. As the housing market has deteriorated, the slowing of new home construction has provided fewer opportunities for the addition of residential access line customers. In addition, the increased voice service competition from wireless providers and cable companies has hindered the ability of traditional wireline providers to achieve a net gain in customers. As commercial/enterprise customers continue facing an adverse economic environment, the business sector will continue to exhibit a decrease in demand for telephone access lines. Unemployment in the US is currently 7.6%⁹, a figure that is expected to continue its rise in the coming months. This trend will lead to the need for fewer commercial access lines moving forward.

One of the primary growth areas in telecommunications industry has been in wireless. Although wireless growth has been highly profitable for carriers that own their wireless operations, such as AT&T and Verizon, a

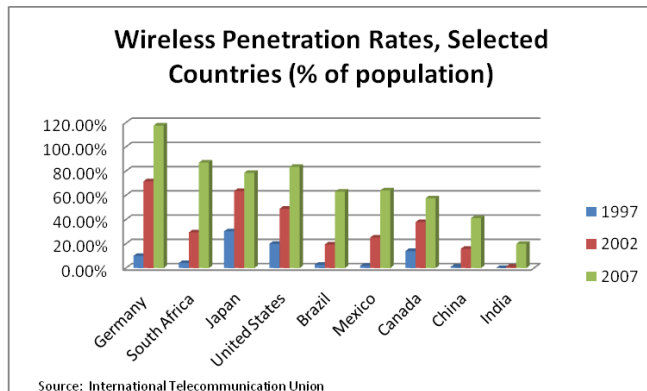


portion of the growth in wireless communications has come at the expense of traditional wireline business, particularly as customers have begun choosing between the two services and wireless users have substituted their large bucket/unlimited voice plans for traditional home access lines.

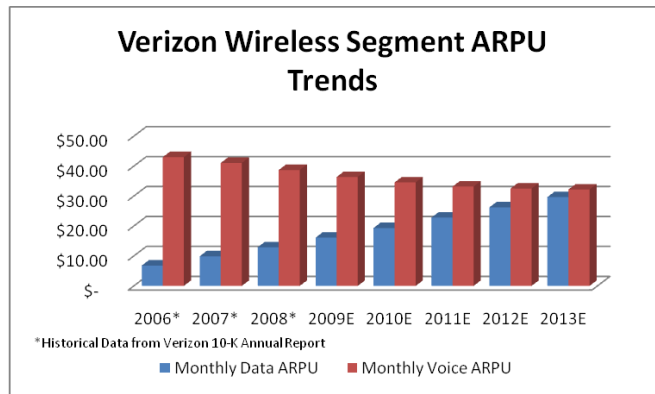
Cable providers have become another threat to wireline providers in their competition for voice services revenues. Cable companies are able to offer Voice over Internet Protocol (VoIP) services, making a number of cable companies a direct competitor of telcos for voice services. Rural service areas, covered by such firms as Iowa Telecom, Windstream, CenturyTel and others, that have a lower population density tend to be less susceptible to competition from cable companies, however, cable providers, with their ability to bundle voice, video and data services, and bolstered by large existing operating footprints and marketing budgets, have become a significant threat to the traditional voice service revenues of telcos⁵.

Wireless Revenue Shift

After years of rapid growth, it appears that the wireless penetration rate is beginning to slow, as wireless penetration rates in the US have reached the mid-80% range (84% penetration as of June 2008)¹.



Despite the potential for a wireless penetration plateau, there is considerable opportunity for revenue growth in the wireless sector of the industry from data services, which include text messaging and mobile entertainment such as music, games and videos and social networking. Both AT&T and Verizon reported significant growth in data services revenue in 4Q08. In the most recent quarter, data services revenue comprised approximately 25% of Verizon's wireless revenues⁷ and 26% of AT&T's wireless revenues⁶, up from 21% and 20% a year earlier. Moving forward, we expect this trend to continue, with our expectation being that within five years, Verizon's wireless data service ARPU will nearly equal wireless voice service ARPU.



The increased popularity of smartphones such as the iPhone has become an important driver of data services demand, mobile entertainment in particular. As mobile internet technology has advanced, followed by more content, which leads to an increased potential for revenue for wireless providers. Global sales for the mobile content market, including music, video, ringtones, and other content is expected to be \$59 billion by 2011. Of this, the US mobile content market is expected to reach at least \$11 billion by 2010⁵.

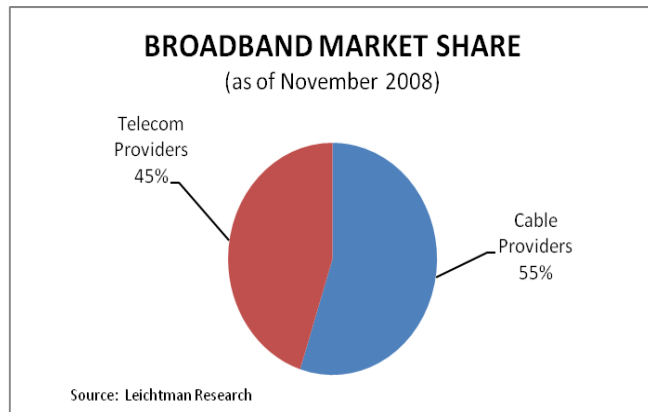
Broadband Competiton

Broadband, the common term for high-speed internet access, is defined by the FCC as data transmission speeds exceeding 200 Kilobits per second (Kbps) in at least one direction (upstream or downstream). Broadband is superior to dial-up internet service in a number of ways – it provides for a higher speed of data transmission, reducing delays in the transmission of content. Additionally, broadband does not block phone lines and allows for access to higher quality internet services such as streaming media, VoIP and other interactive services¹⁰.

Due to a reduced cost and an increase in the demand for high customer connection speeds, there has been an explosion in the demand for broadband services. Telcos, which typically provide broadband services through DSL transmission, are currently engaged in a competition for customers with cable providers, who are able to provide customers with broadband services through use of cable modems. Industry research provider IDC estimates that household broadband penetration rates will climb from 45.5% in 2006 to at least 63% in 2009⁵. According to the Organization for Economic Co-Operation and Development (OCED), as of June 2008, there were an estimated 75 million broadband subscribers in the United States¹¹. These figures clearly indicate that the competition for broadband will be a to revenue growth for the domestic telecommunications industry.



As of November 2008, the Leichtman Research Group estimates that of the top 20 largest telecom and cable providers of broadband, which represents approximately 94% of the current US market, cable providers hold a 55% to 45% advantage over telecoms in the number of broadband subscribers².



In an effort to satisfy customer demand for higher connection speeds and offer increased services, including video, to customers, telecommunications companies are beginning to provide fiber optic technology to provide broadband for customers. Fiber technology will allow for the transmission of data at much higher speeds than current broadband. The implementation of fiber technology is still in the early stages with only 11.8 million North American homes having access to fiber broadband connections as of April 2008, however telecommunications companies have announced plans to expand their fiber networks and offer bundled voice, internet and phone services¹⁰. An expansion of fiber technology options will allow telecoms to better compete against cable companies for customer revenues.

Government Influence

Universal Service Fund Cap – The Universal Service Fund (USF) was created by congress as part of the Telecommunications Act of 1996 to promote the equal access to basic telecommunications services throughout the United States. The USF's primary function is to provide subsidization to firms which enable them to provide service to low-income individuals and those in rural areas. All telecommunications companies providing service between states are required to contribute to the USF¹⁰. In May 2008, the FCC implemented an interim cap on the USF payments made to eligible telecoms as a result of ballooning payments, mostly to wireless carriers, who received nearly \$1.2 billion in subsidies in 2007¹². The USF cap is expected to remain in place until the FCC can come up with a comprehensive reform for the USF. Any significant changes in USF rules and regulations

could have a great impact on Incumbent Local Exchange Carriers (ILECs) that derive a large portion of revenues from the USF. For instance, in 2007, CenturyTel received \$166.5 million, or 6.3%, of its operating revenues from the USF¹³.

Federal Government Stimulus Package – As part of the economic stimulus package that is expected to be passed by the federal government in very near future, it is expected that there will be somewhere in range of \$6 million to \$9 million of funding allocated to the expansion of broadband services to qualified subscribers in “rural” and “unserved” areas. At this time it appears that the proposed funding will be in the form of tax credits and grants for capital expenditures, with the majority of the funding being grant funding¹⁴. Depending on how the final bill looks, the main beneficiaries of a bill establishing grant funding would be rural telecommunications companies, as it would allow for capital expenditure investment in areas that may otherwise not be economically feasible. While industry giants such as AT&T and Verizon would not derive a great deal of benefit from such a structure of the bill, traditional wireline service providers such as Qwest, Windstream, CenturyTel, Frontier and Iowa Telecom that serve largely rural areas would stand to gain significantly from this potential legislation.

MARKETS AND COMPETITION

Corporate Makeup

The domestic telecommunications industry has evolved a great deal from the days of AT&T being an industry monopoly. The industry has become increasingly diverse and converging, with several related sub-industries, led by wireline and wireless telecommunications, that dominate the industry. Within the market, there are a number of companies that offer a variety of services such as wireline voice services, mobile voice services, high-speed internet access and television/video services. A number of these firms are profiled below.

AT&T, Inc.

AT&T provides communications services in the United States. The Company provides local and long-distance phone service, wireless and data communications, paging, Internet access and messaging, cable and satellite television, security services, and telecommunications equipment. AT&T also provides directory advertising and publishing¹⁵.



Verizon Communications, Inc.

Verizon Communications provides wireline voice and data services, wireless services, Internet services, and published directory information. The Company also provides network services for the federal government including business phone lines, data services, telecommunications equipment, and payphones. Verizon has operations worldwide¹⁵.

BCE, Inc.

BCE provides a full range of communication services to residential and business customers in Canada. Under the Bell brand, the company's services includes local, long distance and wireless phone services, high speed and wireless Internet access, IP-broadband services, value-added business solutions and direct-to-home satellite and VDSL television services¹⁵.

Qwest Communications International, Inc.

Qwest provides broadband Internet-based data, voice, and image communications to customers in the United States and other countries. The Company provides local exchange services and data and long-distance services to residential and business customers. Qwest also provides Web hosting services, high-speed Internet access, and private networks¹⁵.

Windstream Corporation

Windstream offers local and long-distance telephone services to residential and business customers in New Mexico, Oklahoma and Texas. The Company also offers broadband and dial-up Internet access in selected markets in Oklahoma¹⁵.

CenturyTel, Inc.

CenturyTel, an integrated communications company, provides local exchange telephone services and wireless telephone services. The Company also provides long distance, Internet access, and security monitoring services. CenturyTel operates throughout the United States¹⁵.

Frontier Communications Corporation

Frontier Communications Corporation provides communications services throughout the United States. The Company's services include long-distance, wireless, teleconferencing, cable television, advanced calling features and basic telephone services. Frontier, through its Electric Lightwave Inc subsidiary, provides Internet access, data, voice and dedicated access services¹⁵.

Metric Comparison

	P/E	Sales (B)	ROE	ROA	EV/EBITDA
AT&T	12.07	124.03	12.16	5.33	5.28
Verizon	14.07	97.35	13.93	5.48	4.17
BCE	6.27	14.57	20.4	5.7	4.35
Qwest	6.65	13.6	270.64	7.04	3.9
Windstream	9.63	3.17	91.36	8.89	5.47
CenturyTel	7.7	2.61	11.61	5.55	4.63
Frontier	13.27	2.27	23.45	5.88	5.91

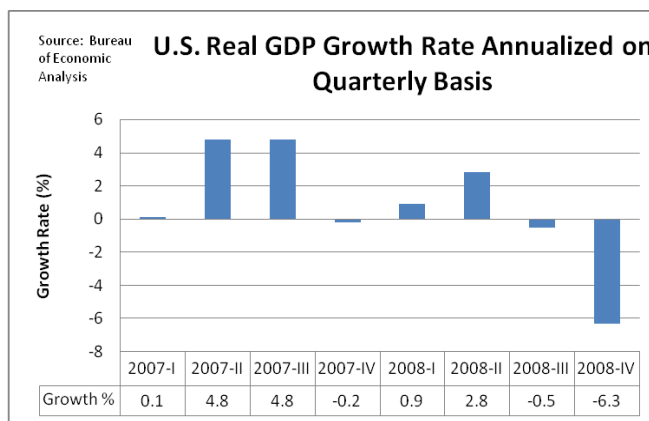
Data Source: Yahoo! Finance

Because of their sheer size and business model, it is difficult to make a fair comparison between AT&T or Verizon with any other domestic telecos. In our view both AT&T are very well-positioned within the industry, however, because of their size, scale and most importantly, their respective positions within the wireless segment of the telecommunications industry.

ECONOMIC OUTLOOK

Gross Domestic Product (GDP)

The US GDP is the market value of all goods and services produced by the labor and property located in the United States, making it the broadest measure of economic activity within an economy. In the last the third and fourth quarters of 2008, the GDP dropped by 0.5% and 6.3%, respectively, marking the first consecutive quarter drop in GDP since the recession of 1990-1991¹⁶.



As with most industries in the United States, the telecommunications industry is affected by the overall health of the economy. As the economy's strength increases, so too does the overall health of the telecommunications industry, as there is a greater need for access lines, minutes of usage and networking and

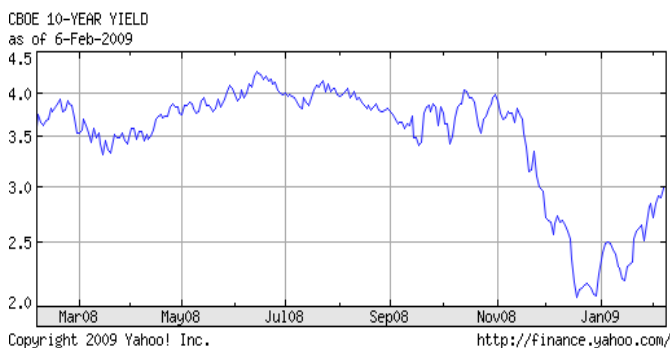


data services that telecommunications companies provide.

Near-term forecasts expect the real GDP growth rate to continue to fall over the course of at least the next couple of quarters before flattening out and perhaps beginning to move in a positive direction towards the latter half of 2009 or early 2010. In the interim, we expect the continued weakening in the economy to slow near-term revenues within the industry, particularly on the enterprise side as telcos experience a decreased demand for business access lines and networking services. It is our expectation that telcos will see significant line losses in 2009, with losses continuing for the next few years until the loss rate bottoms out, at which point we expect access lines to hold steady or even begin to increase slightly, as the US economy fully recovers from the current economic downturn.

Interest Rates

The telecommunications industry is highly capital-intensive, making interest rates a very important factor within the industry, as they have a strong influence the cost of capital. Lower interest rates decrease the cost of capital for firms and tend to stimulate investment in capital expenditures. The yield on 10-year treasury notes, which tends to be a proxy for long-term interest rates, averaged 3.65% in 2008 and is currently hovering just under 3%, quite low by historical standards.



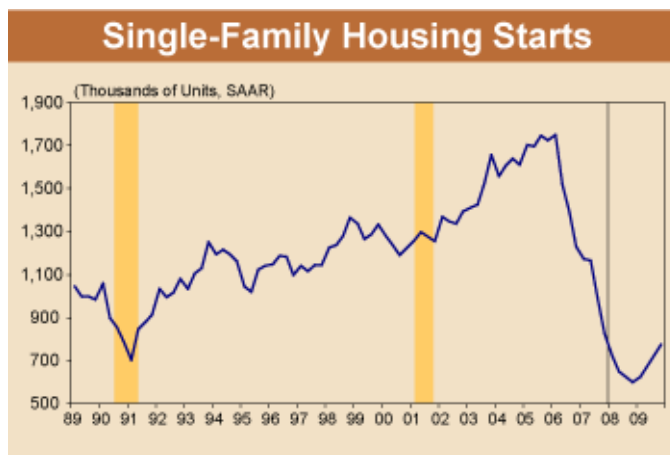
In its effort to push the economy towards a recovery, it is anticipated that the federal government will attempt to keep treasury yields pushed low in the hope of spurring capital spending in the economy and investment in the markets. These efforts, however, may be undermined by the government's need to issue a significant amount of debt in order to pay for the cost of an economic stimulus package. The expectation of an oversupply of federal government debt may drive down the price of treasuries, thereby increasing yields, which move inversely to price. Taking these facts into consideration, we expect treasury yields to remain at a historically low level in the short to medium-term,

making the cost of capital relatively inexpensive for those firms that are able to access capital.

Population and Housing

The demand for telephone service is related to population and housing growth. The more densely populated an area is, the greater demand there will be for telecommunications services. In addition, new housing starts can be an indicator of demand for new access lines and broadband services.

According to the US Census Bureau, privately-owned housing starts in December 2008 were at a seasonally adjusted annual rate of 550,000, which represents a 15.5% drop from the previous month. The census bureau estimates that there were 904,300 housing units started in 2008, a decline of approximately 33.3% from 2007. Additionally, residential housing starts continued to drop, falling an estimated 13.8% in December of 2008 from the previous month¹⁷.



Source: National Association of Home Builders

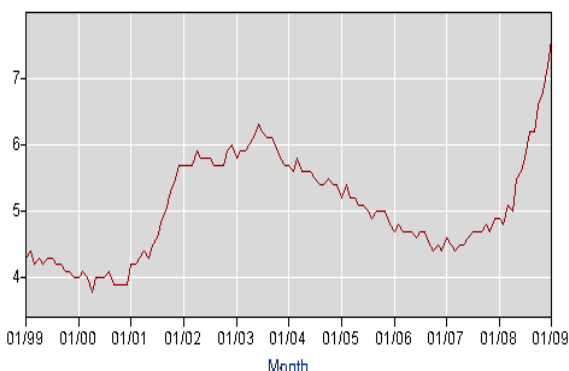
Unemployment Rate

The unemployment rate, which measures the number of unemployed as a percentage of the labor force, is also an important indicator for the telecommunications industry. Although telecommunication services are considered to be core consumer services, as the economy weakens and unemployment rises, customers will be more likely to discontinue telecom services, including voice and internet services. Some customers that do not disconnect services will likely have trouble paying for services if they find themselves out of work. Additionally, as unemployment rises and fewer workers are at the workplace, the amount of telecom traffic that is generated by enterprise users is likely to decrease as fewer telephones are used and less networking and data services are needed. According to the Bureau of Labor Statistics, as of January 2009, the unemployment



rate in the United States is 7.6%, which is the highest level that the US has seen since September of 1992⁹.

US Unemployment Rate (percent):



Source: Bureau of Labor Statistics

Although the economic stimulus package that is currently moving through congress is expected to give the economy a boost by, among other things, creating a significant number of jobs, we believe that the unemployment rate will continue to rise into the latter half of 2009 and perhaps into the early part of 2010, with a strong possibility that the 10% level will be tested. This increase in unemployment will continue to pressure the entire economy, including the telecommunications industry. It is our belief, however, that despite the possibility of further deteriorating employment conditions, the telecom industry will hold up relatively well in comparison to the economy as a whole.

CATALYSTS FOR GROWTH

Role of Wireless

The cellular telephone boom in the United States has seen the wireless user penetration rate go from just 11% to 84% over the past 13 years¹, a trend that has been both positive and negative for the domestic telecommunications industry, depending on which company one is looking at. While the rise of wireless voice services has harmed some industry players by becoming a substitute for wireline service, the emergence of wireless has been a boon for the industry's two largest players, AT&T and Verizon. In 2008, wireless revenues accounted for 40% of AT&T revenues⁶ and 51% of Verizon revenues⁷, respectively. With the high wireless penetration rates that have been achieved, wireless growth is expected to slow, however, there is still a great potential for wireless growth due to increasing demand for data services and other functions that are promoted by the increasing

popularity of smartphones such as Apple's iPhone and Research in Motion's Blackberry, among others. These phones have proven to be significant tools for wireless providers to draw customers. For instance, AT&T currently has an exclusive contract with Apple to be the sole provider for the iPhone until at least 2011. While this has helped AT&T attract a great deal of customers that based solely upon the popularity of the iPhone, AT&T subsidizes a significant portion upfront cost for the iPhone because of the potential future revenue that each customer brings. Should AT&T not be able to extend its contract with Apple through the current expiration date, AT&T would run the risk of not being able to reap the full benefit of the investment that the company has made in subsidizing iPhones for customers.

Moving forward, while we feel that it is likely that there will be many consumers who will choose to forego home access lines and utilize only wireless voice services, we expect that wireline service will still be a core need for many businesses and homes. Due to the fact that many customers are likely to desire both wireline and wireless services, there may be opportunities for traditional wireline carriers to partner with their wireless counterparts to bundle services in the future – a strategy that has been attempted with mixed success. Regardless of the strategies utilized by traditional telcos, we expect wireless to be an increasingly important part of the telecommunications industry in the future.

Broadband

As consumers continue to demand increased internet speeds in order to allow for better online data transmission and communication, broadband services will continue to be a source of revenue for the industry. With the high penetration rates in the access line and wireless markets, broadband is shaping up to be a major battleground on which telecommunications companies will attempt to attract customers. The need for telcos to be able to attract broadband customers has taken on greater importance now that cable companies are offering voice services bundled with broadband and video, threatening to erode the traditional customer base of the telecommunications industry. At the present time, cable providers hold an advantage over telcos in nationwide broadband subscribership.

INVESTMENT POSITIVES

- Telecommunications services are considered to be a core need for consumers. With the economy in a recession, the relatively steady cash flows and



strong dividend yields present investors with an attractive investment opportunity.

- Increasing demand for faster internet speeds will continue to drive the demand for broadband services. The federal government's economic stimulus package is likely to contain funding in the form of grant money available for telecommunications and/or cable providers to investing in broadband capital expenditures in order to supplement the cost of bringing broadband services to rural and unserved areas.
- Continued technological advances in the wireless market will continue to drive demand for wireless services other than voice services, providing growth opportunities for domestic telcos that have wireless operations.

INVESTMENT NEGATIVES

- Outside of broadband services, domestic telecommunications industry is mature and may have few opportunities for growth that are not a cannibalization threat, as we have seen with the wireless portion of the industry.
- Telcos are currently trailing cable providers in the battle over broadband customers. With broadband being the best growth opportunity for traditional wireline carriers, telcos must find a way to reverse this trend. In addition to providing competition for broadband services, cable providers are now offering voice services, threatening the primary revenue source for most domestic telecommunications companies.
- While the emergence of wireless has been of a tremendous benefit to some domestic telcos that also operate as wireless providers such as AT&T and Verizon, wireless has also become a threat for many traditional telecommunications providers that rely on access lines for a large portion of their revenues.

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