Data Services Shine in a Maturing Sector

COMMUNICATIONS SECTOR REPORT

9 November 2017

ANALYST(S)

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Companies mentioned in this report:

- American Tower (AMT - $150.66; Buy) - SFL
- AT&T (T - $33.21; Buy)
- Comcast (CMCSA - $36.39; Buy) - SFL
- Verizon Communications (VZ - $45.57; Buy) - SFL
- Vodafone (VOD - $28.94; Buy)

Prices and opinion ratings as of market close on 11/7/17 and subject to change. Source: Reuters. SFL indicates companies on the Edward Jones Stock Focus List.

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Investment Overview

The communications services sector is experiencing the convergence of wireless, wireline, high-speed data and video services. Although the industry is maturing, we still anticipate growth opportunities in companies that are heavily exposed to wireless and high-speed data services. We are highlighting Buy-recommended names that we feel are positioned to grow at least as fast as the industry and yet have attractive valuations. We recommend that 3% of equity assets be invested in this sector in a well-diversified portfolio.

Growth drivers still exist, but a maturing industry - We feel that wireless services will continue to be a key driver of industry revenue growth as subscribers adopt smartphones and increase usage of wireless data. We expect wireline data services to also grow as consumers activate high-speed Internet connections and increase speeds to accommodate usage of Internet-based video and as businesses transition to new technologies. These growth drivers are partially offset by declining wireline voice and other legacy services.

The Internet is changing everything - Many traditional services are being upended by new solutions that are enabled by the Internet. Voice calls can be completed over the Internet using Skype or Vonage. Video is increasingly accessed via the Internet from sites such as Netflix, Hulu or Amazon Prime. Even pay-TV services are also available via the Internet on multiple devices, such as smartphones, tablet computers and PCs.

Recommended names well-positioned to outperform - In light of evolving communications technology, we are recommending names that we believe are well-positioned to benefit from the industry growth trends. We feel that Buy-rated AT&T, American Tower, Verizon and Vodafone will participate in the proliferation of wireless data services. We believe that Buy-rated Comcast will experience growth from high-speed data services and expand its share in emerging-business services.

Valuations more attractive as short-term concerns have weighed on group - Industry valuations are generally below historical averages. Stocks with wireless exposure have been constrained by competitive fears and the negative short-term impact caused by the adoption of handset installment plans. Dividend yields remain attractive and many companies have been growing dividends. We believe our Buy-recommended names have strong competitive positioning and are aligned with industry growth drivers. Rising interest rates could pose a risk to sector performance as the group tends to underperform the overall equity market when interest rates are rapidly increasing.

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Industry is maturing, but growth opportunities still exist

The communications services sector has transitioned from a high growth phase in the late 1990s, with the deregulation of local telephone services and the adoption of wireless services, to a much more mature phase. Most consumers and businesses have a choice of purchasing landline voice, high-speed Internet and pay-TV services from at least two providers. Consumers can also opt for pay-TV service from two satellite TV operators and can purchase wireless services from multiple providers.

The way in which users access content and communicate with each other is also evolving. Years ago, most households had a landline telephone, while now an increasing number of people use a cell phone for all of their calls. A study by the Centers for Disease Control estimates that 51% of households in the U.S. do not have a landline phone (see Figure 1). The nature of traffic on wireless networks has also shifted as subscribers increasingly use cell phones for texting and accessing Internet content rather than for voice calls.

Figure 1 – Percentage of U.S. Households Subscribing Only to Wireless Phone Service

[Graph showing percentage of U.S. households subscribing only to wireless phone service from 2006 to 2018]

Source: The Centers for Disease Control (CDC)

Viewing habits for video content are also changing as content is increasingly accessed via the Internet rather than from an over-the-air or pay-TV broadcast. Services such as Netflix, Amazon Prime and Hulu are continuing to grow the movie and TV content they offer "over the top" (i.e., via their websites on the Internet). These companies are also starting to invest in their own original programming, rather than just reaching agreements to purchase content from outside producers. To combat these trends, pay-TV operators have invested in software and programming agreements that allow subscribers to access the same pay-TV content that they enjoy at home on any device (PC, smartphone or tablet computer) via the Internet.

In light of current trends in the communications services sector, we estimate annual industry growth of 2% – 3% over the next three years. Although this growth rate is relatively modest, we anticipate that revenue from certain services will grow faster than the industry, while older legacy services, such as wired voice lines and long distance, will decline. We anticipate that revenue in three areas will grow faster than the industry as a whole:

- Wireless Services
- Data Services & High-speed Internet Access
- Video Services

Wireless services continue to grow

The wireless industry has become fairly mature in the U.S. as subscriber penetration levels now exceed 102% of the population. This situation is mathematically possible as some subscribers now connect multiple devices to wireless networks (smartphones, tablet computers, laptop PCs, etc.). We anticipate that penetration levels will continue to increase in the future as subscribers add devices to their wireless accounts.

Wireless carriers are shifting to a flat rate for voice and text as usage of these services is declining; a flat rate locks in a stable revenue stream. In contrast, wireless data (Internet, search, etc.) is growing significantly, so usage-based pricing enables wireless providers to capture more revenue. We anticipate that wireless data revenue will continue growing for several reasons:

1) Smartphone proliferation – In 2014, wireless subscribers using smartphones surpassed 70% of the total U.S. subscriber base. Once a consumer purchases a smartphone, his or her wireless data usage increases dramatically. Most users subscribe to a wireless data plan for the first time when they purchase a smartphone.

2) Migration to 4G LTE networks - Wireless carriers are in the process of upgrading their networks to 4G LTE technology, so subscribers are just starting to purchase 4G phones. A 4G network allows a user to download information faster than a 3G network and enables more effective streaming of video content. We believe that video content will be the single largest driver of data traffic on 4G wireless networks. A recent industry study demonstrated that users of the 4G-compatible iPhone 5 consume three to four times as much data volume as users of the 3G-
compatible iPhone 3. We believe these usage trends will continue into the future (see Figure 2).

Figure 2 – Estimated Global Mobile Data Traffic

Source: Cisco VNI Mobile Forecast

3) Emerging applications – A number of applications that take advantage of wireless data capabilities are starting to emerge. Although the potential revenue per application is much lower than from a wireless phone subscriber, profit margins from these applications are typically higher due to lower marketing costs and no equipment subsidies being paid.

- Machine-to-machine - Any number of devices or machines can transmit data via a wireless connection to enable remote monitoring and control of the sharing of data across interconnected devices. Examples of machine-to-machine applications are asset tracking, remote monitoring of equipment or inventories, energy management, fleet management, self-service kiosks, digital signage, and health care monitoring.

- Connected car – Telematics systems, such as GM’s On-Star, represent the first generation of connected car technology, but the capabilities are expanding in the next generation to include monitoring of car mechanical systems, detection and alerting of potential mechanical problems, theft prevention and passenger Internet access.

- Mobile payments – Software applications, such as Google Wallet and Apple Pay, can be loaded onto a smartphone that enables credit card data to be stored on the phone. This software, combined with Near Field Communication (NFC) technology in the phone, enables a user to tap his or her phone on a point-of-sale terminal to pay for purchases.

We estimate that the combination of smartphone proliferation, adoption of 4G technology, and emerging applications will drive annual wireless industry growth of 4% - 5% over the next three years.

In-home demand for data and Internet services continues to grow

Just as wireless data services have been a key contributor to expanding wireless revenue, wired Internet and data services continue to drive revenue growth for wireline operators inside the home. For consumers, high-speed Internet connectivity is still expanding, as the market is not fully penetrated, and as consumers are increasing their dependency on high-speed Internet access. Based on data from Leichtman Research Group, 81% of U.S. households had some type of "broadband" connection to the Internet at their residence as of December 2015. This penetration continues to rise steadily, helping drive high-speed Internet revenue growth.

At the same time, consumers who already have high-speed Internet connections are demanding faster speeds for both access to traditional Web applications and increasingly to access "over the top" video content. As consumers are more dependent on an Internet connection for video content, the value of a high-speed connection is rising, and consumers are demonstrating some willingness to pay more for higher speeds. We estimate that across the industry, consumer high-speed Internet services revenue will grow 5% – 7% annually over the next three years.

In addition to growing consumer demand, Business customers are seeking increasingly sophisticated data capabilities across a wireline network. Many businesses are willing to pay for data capabilities that are common on an internal corporate network to connect locations across telecom networks. Business customers are also demonstrating strong interest in managed/hosted services in which a telephone company hosts software applications on servers in a data center on behalf of business customers. As a result, the customer pays a monthly fee for the service, but does not have the capital investment or operating expenses associated with running its own data center. We estimate that the total market for all forms of business data services will grow 8% – 10% annually in the next three years as higher-growth services offset declines in legacy services.

Although challenged by Internet content, the video services market is still growing

The entire pay-TV industry is in a state of flux as customers can increasingly access video content from multiple sources over the Internet. Media companies are trying to adapt their business models
to the new ways that consumers can view content. The pay-TV model is based on cable TV and satellite distributors paying content providers a monthly fee for every customer that subscribes to a particular package of cable TV channels.

With the "over the top" model, payment plans vary. For example, Amazon Instant Video allows users to only pay for content on an a la carte basis. In contrast, Netflix users pay a flat monthly fee to access all content. As content increasingly becomes available via the Internet, traditional cable TV networks are making content available to any device over an Internet connection.

With the availability of "over the top" video and around 84% of U.S. households already subscribing to pay-TV, subscriber growth across the industry has slowed. Despite decelerating new subscriber growth, revenues across the industry are still growing modestly due to price increases and additions of new features, such as multi-room digital video recorders, high-definition (HD) service and video on demand.

Within this environment, telephone companies are experiencing much faster video revenue growth as they grab market share from the cable companies with offerings such as Verizon's FiOS. Satellite TV companies are also still taking small amounts of video market share in the U.S. and are taking even more share in emerging markets. We estimate that the total pay-TV market will grow 2 - 3% annually in the next three years, with telecom video revenue growing faster than the industry rate, satellite-TV revenue growing in line with the industry rate, and cable-TV video revenue growing below the industry rate.

**Declines in legacy telecom services weighing on industry growth**

Landline telephone service has been on a steady decline for several years due to multiple factors (see Figure 3). The biggest impact has been from the substitution of wireless service for landlines. Also, consumers are opting for other alternatives, such as phone services offered by cable-TV companies or services offered by Vonage, Skype, MagicJack and other competitors. Although the market for business customers is not experiencing as much impact from wireless substitution, numerous competitive alternatives are available. We estimate that the market for local wireline voice services will decline 5% annually in the next three years.

![Figure 3 – Total U.S. Local Telephone Revenue ($ billion)](image)

Source: FCC

**Competition is fierce in the telecom world**

To be able to grow, all communications-services players need to invest in emerging technology to offer next-generation services and aggressively attack new markets. Cable-TV companies are increasing their market shares in consumer high-speed Internet and in services for business customers. Telephone companies are grabbing share in the pay-TV business, and most have exposure to wireless services that the cable-TV companies do not have. Due to fierce competition, industry players must be exposed to higher-growth areas to deliver increasing revenue and earnings.

**How to Invest in the Sector**

We recommend that in a diversified equity portfolio, 3% of equity assets be invested in the communications services sector. Because stocks in the sector typically pay high dividend yields, they tend to be sensitive to interest rates and may underperform the overall equity market in a rising interest rate environment. As a result, we recommend a 3% weighting in the sector.

For portfolios that are under-weighted in the communications services sector, our current Buy-recommended names are AT&T, American Tower, Comcast, Verizon, and Vodafone. We feel positive about these names because they are exposed to one or more of the industry growth drivers and trade at valuation levels that we feel are attractive. AT&T, Verizon and Vodafone are exposed to both wireless data and high-speed Internet services and are penetrating the video services market. Comcast is exposed to high-speed Internet services, is successfully penetrating the business data services market, and is benefiting from proprietary content via its NBC Universal ownership. American Tower benefits from overall growth in wireless data traffic.
which drives the need to expand equipment capacity at wireless tower sites. Please see the full opinions of the individual companies mentioned in this report for additional information, including valuation and risks.

Valuation

We feel that valuations of large-cap communications services companies are attractive, thus we see opportunities in companies that offer potential long-term growth that is above the sector average. When valuing communications stocks, we use a combination of valuation methodologies, including price-to-earnings (P/E) ratios on an absolute and relative basis as well as discounted cash flow (DCF) analysis.

Risks

We feel that investors face several risks investing in the communications services sector. The sector is highly competitive and is very capital intensive, requiring significant investment to add network capacity and deploy emerging technology. Stocks in the sector tend to be sensitive to interest rates; hence the sector tends to underperform the overall equity market in a rising interest rate environment. Traditional wireline phone service is declining and will likely continue to decline due to wireless replacement and Internet-based alternatives. Methods for accessing video content are changing, which is challenging the established model for providing pay-TV services.

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