Telecommunications Industry

Industry Analysis

The telecom industry has gone through significant changes and transformations since its inception. Over the past decade, the industry has rapidly shifted towards, digital communication, mobile connectivity, and data-driven services. The telecom industry has diversified beyond traditional voice services and more recently voice-over-IP to offerings including, broadband internet with an emphasis on 5G, mobile data, cloud services, and content streaming. The advent of smartphones has revolutionized the industry as mobile devices have evolved to become portable computers that allow users to access internet-based services rather than just voice service alone and thus mobile carriers have seen a surge of mobile data consumption and a decline in voice service usage. The adaptation of Over-The-Top (OTT) media services such as WhatsApp, FaceTime, Messenger, Skype, and Viber have circumvented the need for traditional voice services as these services allow people to communicate globally over the internet at higher quality without having to pay for voice minutes and international calling fees.

In current times, the telecom industry is highly competitive based on innovation as the industry has consolidated into 3 main provider (AT&T, Verizon, T-Mobile). These companies are racing to upgrade their infrastructure to meet increasing data demands for 5G networks that over a wider range of connectivity. Moreover, many businesses are dropping obsolete VOIP services in lieu of OTT software solutions. Failure to innovate has led to many telecom companies failing and ultimately dropping out of the market. The best example of a notable failure is Vonage which was a state-of-the-art VOIP company in the early 2000s-2010s that failed to innovate past their phone service strategically.

Firm 1: AT&T Inc. **(NYSE: T)**

AT&T Inc. is a multinational telecom conglomerate headquartered in Dallas, Texas, and is the world's largest telecommunications company by revenue serving over 100 million customers. AT&T's core business is based on a variety of services such as mobile and fixed-line telephone service, broadband internet, and television. In recent years AT&T has focused its business on both media and innovative technologies. Between 2016-2022 AT&T merged with Time Warner to launch the HBO Max streaming service which was later spun off. In addition to media, AT&T has made significant progress within the 5G race. AT&T 5G is a next-generation wireless network that offers significantly faster speeds, lower latency, and greater capacity than 4G LTE. At this time AT&T is the largest provider of 5G in the United States available in more than 2000 cities and towns across the country and is rapidly expanding its coverage. Along with this, the firm offers AT&T Fiber which is a fiber optic internet service that offers speeds of up to 1 Gbps and is available in over 14 million homes and businesses in the United States.

AT&T's qualitative aspects can be evaluated based on a SWOT analysis to best understand its position within the telecom industry. The firm has strong brand recognition in the United States, holds a vast portfolio of businesses beyond standard telecommunications, and is well-positioned for growth. This is not foolproof as weaknesses are evident from increasing competition based on coverage and pricing from companies like T-Mobile, and Verizon, additionally the firm holds high levels of debt. The vast infrastructure of AT&T's network has created many opportunities for growth in the 5G realm but this can be threatened by increasing regulatory concern regarding the safety of these networks.

a. Key inputs required for the model with emphasis on the future growth rate assumptions

1. Industry Growth Rate = 6.2%
    - PWC predicted industry growth from 2023-2027
2. AT&T Dividend Growth Rate
    - Growth Rate 1 = 0% because dividend did not change
    - Growth rate 2 = 0& because dividend did not change
    - Growth Rate 3 = -46.6% because AT&T is actively reducing its high debt and implementing cost cutting measures
    - AT&T terminal growth rate = -1.10% because of consistently low payout ratio over the past 10 years
3. Intrinsic value of AT&T is $18.74

Buy/Sell Recommendation

1) AT&T is a **moderate buy** due to a variety of factors:
    a) AT&T has attractive dividend payments to income-oriented investors with a dividend yield of 7% it is much higher than the S&P average
    b) AT&T is currently trading below its intrinsic value meaning the stock could see strong growth in the years ahead.
    c) AT&T is improving FCF and placing a focus on eliminating the high debt they have, which improves the company's financial flexibility.

d) High debt and intense competition make this stock vulnerable to change because the increased pressure on AT&T's margins making it hard to maintain its growth trajectory.

Sensitivity Analysis

AT&T is sensitive to changes in the terminal growth and WACC. An increase in the terminal growth rate and a lower WACC result in a higher intrinsic value and vice versa. The terminal growth should align with AT&T's long-term growth meaning the intrinsic value would be inaccurate with a large difference between them

Firm 2: T-Mobile US Inc. **(NASDAQ: TMUS)**

T-Mobile is an American Wireless provider that is the 3rd largest in the U.S by subscribers. The company is a publicly traded subsidiary of the German telecom company Deutsche Telekom. The core business of T-Mobile is providing wireless voice, messaging and mobile data services. In 2017 T-Mobile completed the merger with Sprint forming a new company operating under the T-Mobile brand. This strategic acquisition allowed for rapid expansion into the 5G market. T-Mobile 5G is available in over 2800 towns and cities and is expanding coverage rapidly, expecting to cover over 300 million people by the end of 2023. T-Mobile covers 99% of towns in the United States and its Ultra Capacity 5G offers 5G download speeds of up to 1.9 Gbps per second and average download speeds of 335 megabits per second.

T-Mobile's qualitative assessment in the marketplace can also be evaluated through a SWOT analysis. T-Mobile leads its business based on various strengths with its strong 5G network performance and coverage being the main driver partly due to the synergies created by the merger with Sprint. The firm is not immune from weaknesses as its brand perception is still viewed as a low-cost carrier compared to its counterparts, as well as its unreliability in remote rural areas. Opportunities exist for innovation and growth from the industry-wide race to enable 5G networks in all 50 states of America as well as T-Mobile's potential to invest in emerging technologies such as AI. The business can be threatened by 5G regulatory concerns and a potential economic downturn.

Firm 2: T-Mobile US Inc. **(NASDAQ: TMUS)**

1. Industry Growth Rate = 6.2%
    - PWC predicted industry growth from 2023-2027
2. T-Mobile Dividend Growth Rate
    - Growth Rate 1 = 0% because dividend was not issued.
    - Growth rate 2 = 0% because dividend was not issued.
    - Growth Rate 3 = 10% because of strong free cash flow, growing subscriber base to wireless services, and improved profitability due to increased market share.
    - T-Mobile terminal growth rate = 3% because of a well-positioned place in the market to benefit from increasing demand for 5G services
4. T-Mobile Intrinsic Value
    - $174.92
1. Buy/Sell Recommendation
    a. T-Mobile is a **strong buy** due to a variety of factors
        i. T-Mobile has strong financial performance compared to rivals, more specifically they shine with subscriber growth, revenue growth, and profitability.
        ii. T-Mobile's intrinsic value is much higher than the current trading price suggesting this stock is undervalued.
        iii. Industry growth is expected to be high at 6.2% and stems from the increasing need for 5G connectivity.

Sensitivity Analysis

1) T-Mobile is sensitive to the terminal growth rate and the WACC. An increased terminal growth rate or a lower WACC results in a higher intrinsic value or a lower intrinsic value if numbers are reversed.

Intrinsic Value calculation of AT&T

Valuation Model	Intrinsic Value
Discounted Cash Flows (Growth Exit 5Y)	$16.08
Projected FCF	$41.60
Lowest Forecast	$8.08
Average Forecast	$18.74
Highest Forecast	$29.40

Intrinsic Value calculation T-Mobile

Assumption	Value
Terminal growth rate	3%
Weighted average cost of capital (WACC)	8%
Average EBITDA growth rate	14.22%
Average free cash flow growth rate	69.28%

References

AT&T completes acquisition of Time Warner Inc.. AT&T News, Wireless and Network Information. (2018, June 15). https://about.att.com/story/att_completes_acquisition_of_time_warner_inc.html

Encyclopedia.com. (2023, November 28). *T-Mobile*. Encyclopedia.com. https://www.encyclopedia.com/marketing/encyclopedias-almanacs-transcripts-and-maps/t-mobile-international-ag-company-kg

Encyclopædia Britannica, inc. (2023, November 27). *AT&T Corporation*. Encyclopædia Britannica. https://www.britannica.com/topic/ATandT-Corporation

Mobile accelerator kicks off fall program fueling 5G Innovation in wellness tech - T-Mobile Newsroom. T. (2021, August 31). https://www.t-mobile.com/news/network/t-mobile-accelerator-kicks-off-fall-program